UNIVERSITY OF LONDON

UNIVERSITY COLLEGE ANNUAL REPORT 1963-1964

UNIVERSITY COLLEGE
LONDON

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OFFICERS OF THE COLLEGE

CHAIRMAN OF THE COLLEGE COMMITTEE

THE RIGHT HON. LORD STRANG,

G.C.B., G.C.M.G., M.B.E., B.A., LL.D.

VICE-CHAIRMAN OF THE COLLEGE COMMITTEE

F. J. STEPHENS, M.A.

TREASURER

SIR BERNARD WALEY-COHEN, BT, LL.D.

PROVOST

SIR IFOR EVANS, D.LIT.

SECRETARY

A. TATTERSALL, M.A.

REPORT OF THE CHAIRMAN OF THE COLLEGE COMMITTEE AND THE PROVOST

In our Report for last session, we drew attention to the fact that the Robbins Committee had stated that four of the Colleges of the University had made fundamental criticisms of the existing structure, and that University College was among these four.

The Robbins Committee suggested that the University of London itself should examine these problems urgently and try and reach a solution. As a result a Steering Committee was set up by the Vice-Chancellor of the University, while at the College a Joint Committee of the College Committee and of the Professorial Board examined the position of the College in detail and the widest circulation within the College was given to its findings.

The view of the College was that, while there was no wish to break up the federal structure of the University of London, far wider freedom was required in the structure of degrees, the preparation of syllabuses, the setting of examinations, and in the appointment of Professors and Readers. There were also constitutional issues that needed reform, particularly the questions of the representation of the College on the Committee of Vice-Chancellors and Principals and access to the University Grants Committee.

As this present Report is being prepared, the Steering Committee has submitted its first report to members of the University and this is being considered within the College. The Steering Committee has proposed very considerable concessions about syllabuses and about the appointment of Professors and Readers, but the status of the College in relationship to the Committee of Vice-Chancellors and Principals and to the University Grants Committee still remains obscure. The Provost is, for the session 1964–65, a member of the Committee of Vice-Chancellors and Principals, but he has not a permanent seat. All these are matters which will have to be explored and one hopes that the result will be satisfactory to the College and so permit the continuance of our federal arrangements. We shall report further on these matters next session.

Lord Robbins's Report obviously marks a new stage in thought in this country about the place of universities in our national life and about the number of people that can benefit by such facilities.

From the point of view of University College, which has always concentrated on honours degrees and research, the limiting and unfortunate factor in the Robbins Report is that it seems to desire above all an increase in numbers without an adequate consideration of the quality of the work that will be done. Fortunately, the University Grants Committee at its last visitation did affirm its approval of our programme for honours degrees and research, and it is such a programme that we intend to follow. This must inevitably mean that we cannot make a contribution at the pass degree level of university work.

At the same time, University College London made strenuous efforts to meet the appeal of the Chairman of the University Grants Committee following the findings of the Robbins Report on the necessity for an increase in our undergraduate population: this increase will appear in our next Annual Report. Meanwhile our pre-Robbins figures for students in the session under review were increased by 174, of which 107 were students following first degree honours courses. This represents an increase of 5·4 per cent in the full-time student population compared with an increase of 3·5 per cent in the session 1962–63. The total number of part-time students has shown a slight increase, but if one excludes the Departments of Phonetics and Town Planning, who cater primarily for this category of student, the remainder of the part-time population numbering 343 is no more than 8·3 per cent of the total number of registered students.

A major emphasis of University College will be continuingly on the postgraduate side, and the number of postgraduate students now registered is nearly 1,200. This number has increased by 67 during the session, an increase of 8·5 per cent compared with 6·7 per cent last year.

There is a danger that numbers alone shall count, and there is, of course, a plea, present almost everywhere today, for a more general type of university education. In all this University College must emphasise its own individual character, which has been associated with the honours degree and with postgraduate courses and research. If we are to continue to make advances in chemistry, physics, and the biological sciences, there will have to be concentration and specialisation; in short, there will have to be work in depth. It would be a sad day if university education became an exchange of textbook information. We hear increasingly of the virtues of the seminar method and of tutorials, and these are given due weight in the College as far as staffing and accommodation conditions permit. But, apart

from tutorials, we need large libraries, we need to practice individual study and reading, we need independence of the undergraduate from his teacher or lecturer, we need honours studies as well as general studies with an increasing element of postgraduate work and research, which in these changing conditions we hope that University College London will maintain.

It is not always remembered that, as the Rector of Imperial College said some time ago, the main burden of advanced scientific work in this country falls on five institutions, and that this is a situation that will long continue. Prominent among these institutions is University College London. If one were to isolate biological and medical studies, the emphasis would be still greater, and one must remember that University College is not solely a place for scientific, engineering, and biological studies, it is also one of the great European centres for the study of the humanities and for research in these areas of human knowledge. We have welcomed the formation of the newer universities, though if there had been a national policy on this matter it might well have been that their number would be fewer and their size greater; but meanwhile, for the decades that lie ahead, as far as advanced studies and research are concerned, University College London must be one of the main centres, and the image that we have created and the type of work which we are now doing and wish to continue to do must not be impaired for any reason whatsoever.

While our academic departments will compare in distinction, and frequently in size, with those anywhere in Western Europe, we have been continually faced, particularly since the war, with the problem of living accommodation for our students in London and we are happy to be able to report some progress in this matter.

The main development has been made possible through the existence of an anonymous benefactor who has put at our disposal a sum of £271,000 for the construction of a hall of residence for 127 men students in Fitzroy Street, which the College has named Ramsay Hall and which will be occupied at the beginning of the session 1964–65. In addition, the Anonymous Donor has placed at our disposal £341,000 for the building of a hall of residence for 218 men students on the Whitcher Place site near Camden Town. We were able to report last year that this site had been obtained by a donation by Sir Harold Samuel of £250,000, to which the same Anonymous Donor added a further £20,000. There is still a possibility of further development on this large site, and the College is deeply indebted to Mr Max Rayne who has, through the Max Rayne Foundation, made a gift of £50,000 a year for ten years for this further residential

development on the Whitcher Place site. The College is aware of the interest that Lord Tangley has taken in this whole project through his membership of the College's Development Council and we know that it is through Lord Tangley that these needs were brought to the attention of Mr Max Rayne. Further, Sir Harold Samuel hopes to commence in 1965 the last stage of a development at the Marble Arch end of Oxford Street. He has most generously proposed that he should lease the superstructure above the shops at the east end to the College for a term of 125 years at a peppercorn rent as a student hostel; this plan constitutes a major benefaction to the College. Much will still remain to be done to satisfy the accommodation needs of students of University College, but more has been achieved during this last year than in any period since the war, including the provision of a group of student houses at Colosseum Terrace, within easy walking distance of the College. The total number of students now housed by the College is 601, apart from those in University halls of residence.

We are happy to be able to report building developments on our main sites. The completion of Stage III of the new Engineering Building on the corner of Gower Street and Torrington Place concluded the development of the south-western part of the College perimeter. It was occupied by portions of the Departments of Chemical, Electrical, and Mechanical Engineering. A small building was erected over the South Gate entrance from Gower Street giving additional laboratory space for the Department of Anatomy and Embryology. The cost of this building was met by a grant of £20,000 from the Wellcome Trustees. Work was also started on an extension to the Physics Building which it is expected will be completed early in 1966.

The site which the College has been able to obtain at 2–10 Euston Buildings has now been cleared and work will soon begin on the construction of new accommodation for the Galton Laboratory and the present Department of Eugenics, Biometry and Genetics. The College has leased a building in Tottenham Court Road, very conveniently placed to the main rectangle, and it will be occupied by portions of the Faculty of Laws, Bartlett School of Architecture, Department of Political Economy, Department of French, the Communication Research Centre, and the Student Health Association.

The main problem facing the College in the development of its main site is that of the southern part of the College rectangle on which there are at present a number of temporary buildings and others of an inadequate quality. The College has had the advice of Mr Anthony Cox for the complete redevelopment of the whole of

this part of the rectangle, and he will be reporting to the College early in the session 1964–65.

The new Biological Sciences Building, comprising the Departments of Anthropology, Biochemistry, Biophysics, and Botany, was formally opened by Sir Howard Florey, President of the Royal Society, on 26 June 1964, some time after the actual occupation of the building by these Departments. The opening ceremony took place in the new Botany Theatre and the Building was subsequently open to inspection by visitors for whom demonstrations were given in the laboratories.

The expansion of the College can be to some extent estimated by a financial statement. The income of the College for 1963–64 amounted to £2,864,103, an increase of £435,281 over 1962–63. The main features of this large increase were a supplementary addition to the block grant of £94,000 over the normal increase of £82,000 to make good erosion by rising costs, as a part of the review of University finances that had been promised a year earlier; further grants were also received to finance schemes of revision of academic salaries amounting to some £170,000. This included the first four months of the award by the National Incomes Commission which will cost some £260,000 in a full year.

Expenditure also increased on a corresponding scale: it reached £2,861,537 exclusive of the cost of research projects borne by outside grants, which totalled £509,500 as compared with £480,703 in the previous year. The number of active research projects supported by outside grants reached 266, an increase of 67. Capital expenditure was maintained at a level similar to that of 1962–63 and earlier. Capital grants announced for the year amounted to £385,568 and claims against these and earlier capital grants in reimbursement of expenditure incurred amounted to £616,241.

There were also a number of notable financial developments during the period, all of which mark, in one way or another, the development of our activities. An announcement was made of Research Training support grants by the Research Councils at £200 each per annum for their postgraduate students and this would mean a grant to the College in all of £27,000 per annum for postgraduate students. A purchase of data-link apparatus to connect with the new 'Atlas' computer at a cost of £10,000 was made by the College out of its general savings. This will greatly increase the effectiveness of the use that College Departments can make of the 'Atlas' computer. There was a rise in Technicians' wages by an award from December 1963 amounting in all to about £11,000 per annum. As has been already mentioned, the College took all possible steps to increase

student numbers under what is popularly known as the Robbins 'crash' programme, and finance of £100,000 was obtained for this purpose for the session 1964–65.

There have been a number of important academic developments during the session. Through the generosity of the Leverhulme Trust, the College has been able to establish a Department of Spanish, of which Dr J. S. Cummins, formerly of King's College London, has been appointed Head. The Trust has already strengthened the Chair of Latin American History at the College by establishing a Lectureship in Hispanic and Latin American History, and has provided the Department of Geography with an Assistant Lectureship in Latin American Geography and the Department of Political Economy with an Assistant Lectureship in Latin American Economic Studies. It was considered that the time had come when the College should provide that instruction in the Spanish Language which was essential for the more effective promotion of the various branches of Latin American studies now carried on in it, and, at the same time, establish a Department of Spanish as an academic discipline in its own right. The latest benefaction of the Leverhulme Trust enables the College to revive a Department which had lapsed since the distinguished Spanish refugee, Antonio Alcala Galiano, held at the College the first Chair of Spanish in the United Kingdom from 1828 to 1830.

A new development in the Bartlett School of Architecture is indicated by the institution of the Haden-Pilkington Chair of Environmental Design and Engineering, for which financial support has been promised by Messrs G. N. Haden and Sons Limited and Pilkington Brothers Limited. The purpose of the Chair is to further the study of what makes buildings pleasant, comfortable, and stimulating to live and work in, and to educate future architects, engineers, and scientists in ways of designing a better environment for human beings in our buildings and cities. Negotiations are also in progress with the London Master Builders' Association for the establishment of a Chair of Building.

A Readership in Soviet Law has been established in the Faculty of Laws, the first appointment of its kind in this country.

While no attempt is made in this Report to refer to the achievements of individual departments, reference must be made to outstanding developments in the Department of Egyptology. Professor Emery brought to a triumphant conclusion his excavations of the great Pharaonic fortresses at Buhen in the Sudan, which have occupied him since 1957. All other events in the Departments have been overshadowed by two gifts of major importance received during the

year. The first was the bequest of Sir Alan Gardiner of his Library, by common consent the finest private Egyptological library in the country (see also page 102). The second gift is the munificent donation by the Wellcome Trustees of the great collection of Egyptian and Sudanese antiquities formed by the late Sir Henry Wellcome which has until now formed a part of the Wellcome Historical and Medical Museum. Perhaps the most important private collection in the country, it contains an extensive range of excavated and purchased antiquities, many of which have never been fully published and studied. Undoubtedly it is the Department's most important acquisition for many years and fills important gaps in the Petrie Collection, notably the Sudanese material. The 350 boxes containing the Collection have been transported to the College, unpacked and sorted. The Wellcome Trustees have been most generous in providing exhibition cases, storage cupboards, records, and books for the Collection, and the Department hopes by next year to have on exhibition a considerable portion of the antiquities. Unfortunately, at present, space difficulties preclude the Department from making the complete Collection available for study, but it is hoped that extensions to the Department will make this possible. The combined Petrie and Wellcome Collections undoubtedly form the largest and most important Egyptological Collection in Europe outside the publicly owned Museums.

The Association of the Friends of University College London have again decided to accumulate the greater part of their income in order to meet large projects certain to be forthcoming in connection with the opening of the Ramsay Hall of Residence for men students in October 1964, and the Central Collegiate Building which will soon be under construction. The Friends however, undertook to finance a number of small projects during the session 1963–64. A grant of £350 has been given towards the cost of constructing a netball court and shelter which were badly needed at the Shenley Athletic Ground. A further grant of £50 was given towards the production of the Dramatic Society's periodical *Prompt*. Again a Reception was held for former students in February 1964 to which the Friends contributed £100. The Friends have been responsible for bearing a large proportion of the cost of mounting, boxing, and cataloguing the College collection of pictures and prints and they have now made a further grant of £170 to complete this work. A member of the Friends has generously met the cost of some silverplated candelabra for use at College dinners. Another member has kindly made a gift of £25 to enable a photographic record to be started of certain projects undertaken by the Friends.

The Assembly of Faculties was held at Friends' House on 18 June and Lord Robbins was the Special Visitor on this occasion. There was a large and appreciative audience for his address on 'Bentham in the Twentieth Century'.

STRANG, *Chairman*

IFOR EVANS, *Provost*

SUPPLEMENT

HONOURS AND DISTINCTIONS

A Life Barony was conferred on Professor R. Llewelyn Davies, Head of the Bartlett School of Architecture.

The 1964 New Year Honours List included awards to two Fellows of the College: the Order of K.C.B. was conferred on Sir Solly Zuckerman, Chief Scientific Adviser to the Minister of Defence, and a Knighthood on Robin Darwin, Principal of the Royal College of Art. Dr J. H. Gaddum, Director of the Institute of Animal Physiology at Cambridge and formerly Professor of Pharmacology at University College London, also received a Knighthood. The Order of C.M.G. was conferred on A.D.B. Hamilton, Chairman of the Public Services Commission in Barbados and a former student of the College, and the C.B.E. on two former medical students—Dr L. I. Henzell, lately Commissioner of Public Health in the State of Western Australia, and Dr H. J. Malkin, Senior Consultant Obstetrician at Nottingham.

The Queen's Birthday Honours included further awards to former students: a Knighthood was conferred on H. E. I. Phillips, Minister of Finance in Nyasaland; the Order of C.B. on R. R. Goodison, Under Secretary in the Ministry of Aviation; and the Order of C.B.E. on H. M. Colvin, for services to architectural history, A. A. L. Lane, Deputy Chief Engineer in the Ministry of Housing and Local Government, and R. M. Walker, Professor of Surgery in the University of Bristol and a Fellow of this College.

Professor P. G. Foote was appointed by the President of Iceland as a Chevalier of the Order of the Falcon.

Lord Robbins, Honorary Fellow of the College, was re-elected President of the British Academy and Professor James R. Sutherland was elected a Vice-President. Professor G. W. Keeton was elected to a Fellowship of the British Academy. Professor B. Katz became a member of the Council of the Royal Society; Professor Eleanor Burbidge and Dr E. J. Denton, former students, Dr L. Fowden,

member of staff of the Botany Department, and Sir William Hudson, Fellow of the College, were elected to Fellowships of the Royal Society. Mr F. J. P. Gore, a former student of the Slade School of Fine Art, was elected an Associate of the Royal Academy; Sir Solly Zuckerman, Fellow of the College, an Honorary Fellow of the Royal College of Surgeons of England; and S. J. Ntiro, High Commissioner for Tanganyika in London and a former student, a Fellow of the Royal Society of Arts. Mr O. W. Humphreys, Fellow of the College, became President of the Institution of Electrical Engineers.

A number of past and present members of staff were honoured by election to foreign academies: Professor E. H. J. Gombrich as an honorary member of the American Academy of Arts and Sciences, Professor J. B. S. Haldane as an associate foreign member of the National Academy of Science (Washington), Professor A. F. Huxley as a foreign member of the Royal Danish Academy of Sciences and Letters and as a member of the Deutsche Akademie der Naturforscher Leopoldina, Professor A. D. Momigliano as an honorary member of the American Historical Association, Professor A. H. Smith as a foreign member of the Royal Danish Academy of Sciences and Letters and D. M. Wilson as a corresponding member of the German Archaeological Institute. Sir Mortimer Wheeler, Fellow of the College, was elected an honorary life member of the New York Academy of Sciences.

Honorary Degrees were conferred on past and present members of the College as follows: the D.Litt. of the University of Newcastle on Sir Robin Darwin, the LL.D of the University of Edinburgh on Sir John Gaddum, the Sc.D. of the University of Cambridge on Sir Harold Himsworth, the D.Litt. of the University of Oxford on Professor Sir William Holford, the D.Sc. of the University of Sheffield and the M.D. of the University of Saarlandes on Professor A. F. Huxley, the D.Litt. of the University of Birmingham on Osbert Lancaster, the D.Litt. of the University of Belfast on F. E. McWilliam, the LL.D. of the University of Leeds on the Rt Hon. Lord Marks of Broughton, the D.Sc. of the University of Leicester on Professor Sir Harrie Massey, the D.Litt. of the University of Edinburgh on Professor A. D. Momigliano, the LL.D. of the University of Sussex on W. G. Stone, the D.Litt. of the University of Oxford on Sir John Summerson, and the Litt.D. of Harvard University on Dr C. Veronica Wedgwood.

Awards to professorial members of the College included the Daly Medal of the American Geographical Society to Professor

H. C. Darby, the joint award to Professor A. F. Huxley of the Nobel Prize for Medicine for 1963, the James Flack Norris award in physical organic chemistry made by the American Chemical Society and the Paracelsus Medal of the Swiss Chemical Society to Professor Sir Christopher Ingold, the Royal Medal of the Royal Society of New South Wales to Professor R. S. Nyholm, and a 1963 award by the Joseph P. Kennedy Foundation on Mental Retardation to Professor L. S. Penrose who was also awarded the James Spence Medal of the British Paediatric Association.

Among past and present members of the College who obtained interesting appointments were Professor F. G. Young, who was appointed the first Head of Darwin College, the new graduate college in the University of Cambridge, Sir Mortimer Wheeler, who was appointed a Trustee of the British Museum, and Professor Sir William Coldstream, who became Chairman of the Governors of the British Film Institute.

APPOINTMENTS

The following were appointed to membership of the College Committee in the course of the year: Dr J. C. Hawksley of University College Hospital, who also succeeded Mr E. K. Martin as Chairman of the Student Health Association Committee, E.M.P. Welman of Baring Brothers, and the Rev. A. Montgomery Mann who replaced Dr H. K. Cameron as the representative of the Old Students' Association of the College. Mr G. E. Walker succeeded L. H. Macklin as Chairman of the Managing Committee.

Within the College, Professor R. A. Wollheim was appointed to the Grote Chair of Philosophy of Mind and Logic and to the headship of the Department of Philosophy, and Dr A. Maccoll to a Chair of Chemistry. Mr P. G. Foote was appointed Head of the Department of Scandinavian Studies and the University conferred on him the title of Professor of Old Scandinavian. Titles were also conferred by the University of London as follows: Professor of Micropalaeontology on Dr T. Barnard, Professor of Physics on Dr M. J. Seaton, and Professor of Hebrew on Dr S. Stein. The following were appointed to established Readerships: Dr J. H. Bird (Geography), Dr Elizabeth M. Deuchar (Embryology), E. L. Johnson (Soviet Law), Dr D. H. Michael (Applied Mathematics), Dr B. R. Rabin (Biochemistry), H. S. Smith (Egyptian Archaeology), Dr E. Wiesenberg (Hebrew), and D. M. Wilson (Archaeology of the Anglo-Saxon Period). The title of Reader was conferred by the University on Dr D. E. Barton (Statistics), H. Billett (Mechanical

Engineering), Dr W. G. Chaloner (Botany), Dr R. W. Guillery (Anatomy), Dr K. J. Ives (Civil and Municipal Engineering), Dr O. C. J. Lippold (Physiology), and Dr F. M. L. Thompson (Economic History).

At the beginning of the session, Professor E. R. H. Ivamy was appointed Dean of the Faculty of Laws and Professor G. Schwarzenberger became Vice-Dean. In the second term, Professor Arthur Brown succeeded Dr D. J. B. White as Adviser to Postgraduate Students, and in August 1964 Dr G. Hall of the French Department took up appointment as the first Warden of the new Ramsay Hall of Residence for men students.

A number of members of the academic staff and former staff and students of the College obtained academic appointments outside the College.

Within the University of London, B. A. O. Williams was appointed to the Chair of Philosophy at Bedford College, and the Chelsea College of Science and Technology, in anticipation of the granting to it of university status, conferred the title of Professor on Dr S. E. Dicker, Head of the Department of Physiology and Pharmacology at that College. The title of Professor of Chemistry was conferred on Dr V. Gold of King's College, and the title of Professor of Experimental Medicine on Dr J. M. Ledingham of the London Hospital Medical College. At Queen Mary College, the title of Professor of Mechanical Engineering was conferred on E. J. Le Fevre, and the title of Professor of Modern History on Dr R. F. Leslie. Dr Anne E. Beloff-Chain was appointed to a Readership in Biochemistry at the Imperial College of Science and Technology, Dr R. Penrose to a Readership in Mathematics and Dr P. H. Venables to a Readership in Psychology, both at Birkbeck College. The title of Reader in Nutrition at Queen Elizabeth College was conferred by the University on Dr Alice M. Copping, the title of Reader in Mathematical Statistics on Dr G. M. Jenkins and the title of Reader in Applied Mathematics on Dr O. Penrose in respect of their posts at the Imperial College of Science and Technology. Mr Andrew Forge was appointed Head of the Department of Fine Art at Goldsmiths' College.

The following members of staff and former students of the College obtained academic appointments at other Universities: Dr G. H. A. Cole was appointed to the newly established Chair of Theoretical Physics in the University of Hull, Dr Z. P. Dienes as Professor in the Department of Education of the University of Adelaide, Dr E. R. Dobbs to the Chair of Physics in the University of Lancaster, Dr J.

H. Dunning as Professor of Economics in the University of Reading, Dr R. H. Garstang as Professor of Astrophysics in the University of Colorado, Dr S. Griew to the Chair of Psychology in the University of Otago, Professor H. Halberstam to the Chair of Pure Mathematics in the University of Nottingham, Professor J. A. Hawgood to the Chair of American History in the University of Birmingham, A. G. Ling to the Chair of Architecture and Civic Planning in the University of Nottingham, Dr R. Mason to the Chair of Inorganic Chemistry in the University of Sheffield, Dr J. Maynard Smith to the Chair of Biology in the University of Sussex and as Dean of the new School of Biological Studies in that University, D. J. Payne to the Chair of Law in the University of Western Australia, Dr O. E. Potter to the Chair of Chemical Engineering in Monash University, Australia, Professor P. D. Strevens as Professor of Applied Linguistics and Director of the Language Centre in the University of Essex, and Dr S. G. Sturmey as Professor of Economics in the University of Lancaster. Dr F. D. S. Butement was appointed to a Readership in Biochemistry in the University of Liverpool and Miss Annie S. Robertson to a Readership in Roman Archaeology in the University of Glasgow.

Mention must be made of an important appointment to the administrative staff. In April 1964, Mr A. Tattersall succeeded Mr E. A. L. Gueterbock as Secretary of the College. Mr Tattersall's excellent qualifications for the post include a distinguished record as a student in the University of Cambridge where he obtained First Class Honours in both Parts of the Classical Tripos and the M.A. degree, and valuable experience in a number of university posts, including those of Deputy Academic Registrar in the University of London from 1950 to 1955, Secretary to the Council of Makerere University College, Uganda, from 1955 to 1961, and, more recently, Warden of the University of London International Hall and Secretary to the Committee on University Teaching Methods.

RETIREMENTS

The retirement of three members of the professorial staff and of two members of the administrative staff calls for special mention.

Professor W. R. Dean retired from the Goldsmid Chair of Mathematics, which he had held since he came to the College from the University of Cambridge in 1952. He had been Joint Head of the Mathematics Department since 1958. His main field of research is continuum mechanics and over a period of forty years he has maintained a steady output of important and stimulating papers on such

topics as secondary flow, the motion of highly viscous fluids and surface waves. In addition, he helped and encouraged many students by his undergraduate lectures and by supervision of postgraduates. During the last three years he was Dean of the Faculty of Science. Professor Dean was one of the founder editors of *Mathematika*, and as he is remaining on its editorial board his contact with the College will not be completely broken.

Professor D. McKie, who retired from the Chair of History and Philosophy of Science, had been associated with the College since he entered the Chemistry Department as a student in 1920. He was awarded the Ramsay Medal in 1925 in which year he became a member of the staff, as part-time demonstrator in the Chemistry Department and part-time assistant in the first Department in the country to study the history and method of science. He became Head of the Department of History and Philosophy of Science in 1957. Three years earlier he had been elected a Fellow of the College and in 1958 he was elected a Fellow of the Royal Society of Edinburgh. Professor McKie's scholarly and outstanding work in the history of science brought him many distinctions, including the Dexter Award of the American Chemical Society. He was made a Chevalier de la Region d'Honneur in 1957 in recognition of his extensive researches on French chemistry in the seventeenth and eighteenth centuries. In 1936 he was actively concerned in founding the quarterly *Annals of Science*, and he has been a member of the 'Commission Lavoisier' of the Academie des Sciences, Paris, since 1948.

Professor Raphael Powell's retirement from the Chair of Roman Law was a matter of special regret, coming as it did after a prolonged absence on account of illness. He joined the College as a Reader in 1949 and was promoted to the Chair in 1955. Professor Powell was not only a Romanist; he was extremely active also on the English Law side of the Faculty. He will be remembered by many of its former students as a stimulating teacher, expecting them to work hard, but prepared to take immense pains to help them in every possible way.

On the retirement of Mr E. A. L. Gueterbock, both the College Committee and the Professorial Board recorded their warm appreciation of the distinguished service he had given as Secretary of the College since 1947. He took up office at a time when the administration of the College was still much disorganised as a result of war and evacuation, and much that was most effective in the system as it now existed derived from his influence. Apart from his work as Secretary, he had acted as Honorary Secretary of the Association of Friends of the College since the establishment of the Association in

1952. He had further acted as Honorary Secretary of the increasing number of Trusts that the College supervised. He had been Joint Honorary Secretary of the Ramsay Memorial Trust since 1948, of the Drummond Trust since its foundation in 1954, and of the Rothermere Fellowships Trust since the College assumed the administration of the Trust in 1958. For seventeen years Mr Gueterbock had a most valued influence upon the development of the administrative work of the College, showing dedication and resource in the face of the many problems of the post-war period.

Mr J. H. Nicholls had completed nearly forty-five years as a member of the administrative staff when he retired on 31 July 1964. Appointed in the first place as Assistant to the College Cashier, he later became Assistant Cashier and in 1948 College Cashier. His duties brought him into contact with a countless number of students and members of all ranks of staff through the years and to them all he gave the same helpful attention. The College has lost yet another who has given to it, in a quiet and unassuming way, a lifetime of loyal service.

RESIGNATIONS

Mr L. H. Macklin resigned from the College Committee at the end of the session. In accepting his resignation the Committee expressed their warm appreciation of the long and valuable service he had given to the College, not only as a member of the College Committee but as a member, and later Chairman of both the Managing Committee and the Pension and Superannuation Committee, and as a member of a number of other committees as well as of the College Court of Discipline.

Among the resignations from the academic staff recorded in Appendix IV is that of one member of the professorial staff, Professor J. Hamilton, who had held a Chair of Physics since October 1960. During his tenure of the Chair he established a very effective research group in the field of theoretical high energy physics. He left the College at the end of the session on his appointment to a Professorship at the Nordic Institute for Theoretical Atomic Physics at Copenhagen.

At the end of December 1963, Dr D. J. B. White resigned from the office of Adviser to Postgraduate Students in which he had given valuable service since January 1954, particularly in building up the tradition of the Postgraduate Common Room.

OBITUARY

We record with regret the death during the year of a number of past and present members of the College.

An Honorary Fellow of the College, Professor Emeritus Sir Albert Richardson, died in February 1964. Professor Richardson was Head of the Bartlett School of Architecture and Professor of Architecture from 1919 to 1946. He will be remembered by many past and present members of the School as a gifted teacher with lively and penetrating powers of criticism, scintillating wit, and an extraordinary capacity for inspiring his students with enthusiasm as well as commanding their respect. Professor Richardson was responsible for the planning of several pre-war College buildings, and for the restoration of the Main Building and the designing of the new Physics Wing after the war. Outside the College, his reputation as a talented architect was made by numerous architectural works. His interest in the preservation and restoration of churches and other ancient buildings found expression in the restoration of war-damaged churches, including St James's Church, Piccadilly. He made a notable contribution to the history of architecture and was a recognised authority on the Georgian period. As a writer on the architecture of this period he stood in the front rank. Professor Richardson was knighted in 1956 after he had become President of the British Academy.

The College lost five of its Fellows in the course of the year, including Mrs Constance Bruce Watson (née Low), Senior Fellow who was elected to Fellowship in 1906, and Dr Margaret Murray its oldest Fellow who celebrated her hundredth birthday on 15 July 1963. Dr Murray entered the College as a student in 1893 and was for many years a member of the staff of the Egyptology Department, having the status of Assistant Professor from 1924 to 1935. She often assumed responsibility for the whole of the teaching and administration of the Department during the absences of Professor Sir Flinders Petrie in Egypt, as well as taking part in excavations herself and making her own monumental contributions to Egyptological research. After her retirement Dr Murray remained a familiar figure in the College; and, as evidence of her continued activity, books and articles both scientific and popular came from her pen. Her autobiography *My first Hundred Years* was published on her hundredth birthday. That occasion was celebrated at the College and Dr Murray was presented with an illuminated copy of a resolution of the Professorial Board placing on record their 'deep appreciation of the high honour which through her renowned scholarship she had brought to the College'.

Few members of the College can have had a longer and more continuous association with it than Dr Elizabeth A. Fraser, who

entered the College as a student in 1905. She was President of the Women's Union Society in 1909–10 and its Vice-President in 1916–17. After graduation she remained as a research student in the Department of Zoology until 1917 when she was appointed to the staff of the Department. Dr Fraser became a Reader in 1931, and after her official retirement in 1945 maintained her association with the Zoology Department as an Honorary Research Associate until her death. To succeeding generations of students working in the Zoology Department she gave generously in a quiet and unobtrusive way.

Sir Frederick Hooper completed his undergraduate course in the Botany Department of the College during the years immediately preceding the First World War, and after war service had a distinguished career in business and public life. In the College, however, he will be remembered chiefly for the active part he took in the formation of the Association of Friends of the College. He was a Founder Member and Trustee of the Association, and successively its Treasurer, Vice-President, and finally President during the period 1959–61, remaining a member of Council until his death.

Dr Richard Offor, also a Fellow of the College, died during the year. In Hale Bellot's *University College London 1826-1926*, R. W. Chambers writes in the chapter on the Library that 'he was fortunate in being able to collect around him a group of energetic and scholarly young men, fresh from school, who mostly worked for their degree simultaneously with their library work'. Richard Offor was the second of these young men to be appointed, and for the first two decades of this century helped Chambers to carry out his plans for the extension and modernisation of the College Library. He resigned in 1919 to become Librarian of the University of Leeds from where he retired as Emeritus Librarian in 1947.

Professor Emeritus H. J. Collins died in December 1963. He began his academic career in the College in 1923 when he was appointed a lecturer in structures in the Faculty of Engineering. In 1936 he became Chadwick Professor and in 1947 Head of the Department of Civil and Municipal Engineering. He retired in 1959. Throughout his academic career he maintained a professional career as a partner in the firm of Collins and Mason which brought him in contact with a wide variety of structural and foundation problems, his deep interest in structural engineering forming a valuable link between engineering practice and education. He had a breadth of interest however in the whole field of civil engineering to which he brought a perceptive and inventive mind. He encouraged the development of many research interests, not the least of which

was the study of problems in the field of public health engineering, for which he equipped the present Chadwick Laboratory. He always had time for his students, used his good humour to reduce problems to their proper proportions, and brought to bear his qualities of wisdom and generosity in their solution.

The Physiology Department sustained the loss of a valued member of staff by the death on 20 August 1964 of Dr L. E. Bayliss. Son of Professor Sir William Bayliss and nephew of Professor E. H. Starling, both former Professors of Physiology in the College, Dr Bayliss though a graduate of the University of Cambridge was associated with the Department during the greater part of his career. He held the post of Reader in Physiology from 1945 to 1950. He resigned the Readership in order to work on the production of an entirely new two-volume version of *Principles of General Physiology*, originally written by his father. It was completed in 1960; and this, together with his extensive work on the viscosity of blood on which he was an international authority, will constitute his main public claim to fame. He remained teaching and carrying our research in the College to the end, and will be remembered gratefully by scores of physiologists and students for the characteristic kindness and modesty with which he helped them, stimulating colleagues young and old with suggestions drawn from his wide range of experience in the physical and biological sciences. His widow, Dr M. Grace Eggleton, is also a long-standing member of the staff of the Department of Physiology.

In the course of the year the College received with regret news of the death of many of its former students. Among them were S. R. Curtis, Secretary of the School of Pharmacy, who had maintained an active interest in the College since his student days which culminated in membership of the Council of the Association of Friends of the College; J. A. Farnham, Head of the Physics Department of Goldsmiths' College London, and Dr G. M. Morant who was a member of the Department of Statistics for a number of years and held a staff appointment from 1927 to 1946.

O. V. Lawley, a member of the administrative staff from 1916 until his retirement in 1960, died in May 1964. He served in various departments and built up a knowledge of College affairs over the years that can have been equalled by very few. From 1927 to 1960 he was Superintendent of Records, and for a number of years during that period he was also private secretary to the Provost. He will be remembered also by some older members and former members of the College as Assistant Secretary of the St Christopher's Working Boys' Club, which had premises in Fitzroy Square and was sponsored

by students of the College and Medical School between the wars. Many others will remember his work in connection with the *Little Plays of St Francis*. Presented originally by the Dramatic Society in 1925 with the object of raising funds for the St Christopher's Club, the *Little Plays* became an annual event for a number of years throughout which Mr Lawley acted as business manager and played no small part in their success.

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[1 AUGUST 1963—31 JULY 1964]

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APPENDIX I

COLLEGE COMMITTEE

	*Attendances**
Chairman: The Right Hon. Lord Strang, G.C.B., G.C.M.G., M.B.E., B.A., LL.D.†	7–7
Vice-Chairman: F. J. Stephens, M.A.‡	5–7
Treasurer: Sir Bernard Waley-Cohen, BT, LL.D.‡	7–7
Professor H. E. M. Barlow, B.SC.(ENG.), PH.D., M.I.E.E., M.I.MECH.E., F.R.S.†¶	4–4
H. K. Cameron, PH.D., F.R.I.C., M.I.CHEM.E., M.I.E.E., F.S.A.§	2–3
Mrs Irene Chaplin, B.A., J.P.	3–7
Professor W. R. Dean, M.A.§	3–3
Professor M. B. Donald, M.SC., F.R.I.C., HON.M.I.CHEM.E., A.R.C.S.§	2–3
P. Dunsheath, C.B.E., M.A., D.SC.(ENG.), D.ENG., LL.D.	6–7
Sir Ifor Evans, D.LIT.† *Provost*	7–7
Sylvester Gates, C.B.E., B.A.	5–7
J. C. Hawksley, C.B.E., M.D., PH.D., F.R.C.P., M.R.C.S.†	6–7
Professor A. V. Hill, C.H., O.B.E., SC.D., LL.D., D.SC., M.D., F.R.S.‡	5–7
Professor R. A. Humphreys, O.B.E., M.A., PH.D.	5–7
Professor A. F. Huxley, M.A., D.SC., M.D., F.R.S.	2–7
Sir Frederick James, O.B.E.‡	3–7
Professor D. Lewis, D.SC., F.R.S.¶	4–4
L. H. Macklin, O.B.E., M.A., F.R.C.M.	4–7
The Rev. A. Montgomery Mann, T.D., B.A., B.D.¶	4–4
T. A. L. Paton, C.M.G., B.SC., M.I.C.E., M.AM.SOC.C.E.†	5–7
Sir Edward Playfair, K.C.B.	5–7
Constance M. Rigby, M.A., PH.D.	4–7
Professor E. C. Ryder, M.A., LL.B.	5–7
G. F. Vaughan, M.B., M.R.C.P., D.P.M.	3–7
G. E. Walker, O.B.E., M.A.	7–7
E. M. P. Welman¶	2–5
Professor Lady Williams, C.B.E., B.A.	0–7

* The two figures indicate respectively the number of times that the member attended, and the number of times that he was summoned to a meeting of the Committee during the year 1 October 1963 to 30 September 1964. † Fellow of the College. ‡Hon. Fellow of the College. § Membership terminated before 30 September 1964. ¶ Appointed after 1 October 1963.

PROFESSORIAL BOARD

Chairman: Sir Ifor Evans, D.LIT., Provost†

M. Abercrombie, M.A., B.SC., F.R.S., Jodrell Professor of Zoology and Comparative Anatomy

C. W. Allen, D.SC., Perren Professor of Astronomy

G. C. Allen, C.B.E., M.COM., PH.D., Professor of Political Economy

H. C. Allen, M.C., M.A., Commonwealth Fund Professor of American History

G. F. Arnold, B.A., Lecturer in Phonetics

Ernest Baldwin, PH.D., Professor of Biochemistry

H. E. M. Barlow, B.SC.(ENG.), PH.D., M.I.E.E., M.I.MECH.E., F.R.S., Pender Professor of Electrical Engineering†

J. A. Barnard, PH.D., A.R.C.S., D.I.C., Lecturer in Chemical Engineering

T. Barnard, PH.D., D.I.C., Professor of Micropalaeontology

N. A. Barnicot, PH.D., Professor of Physical Anthropology

M. S. Bartlett, M.A., D.SC., F.R.S., Professor of Statistics

R. E. D. Bishop, M.A., M.S., PH.D., D.SC.(ENG.), A.M.I.MECH.E., A.F.R.AE.S., Kennedy Professor of Mechanical Engineering †

R. L. F. Boyd, B.SC.(ENG.), PH.D., M.I.E.E., Professor of Physics

F. Brailsford, B.SC.(ENG.), PH.D., M.I.E.E., Professor of Electrical Engineering

Arthur Brown, M.A., Professor of English

E. H. S. Burhop, B.A., M.SC., PH.D., F.R.S., Professor of Physics

A. H. Chilver, M.A., D.SC., A.M.I.STRUCT.E., A.F.R.AE.S., Chadwick Professor of Civil Engineering

A. B. C. Cobban, M.A., PH.D., Professor of French History

Sir William Coldstream, C.B.E., D.LITT., Slade Professor of Fine Art†

P. E. Corbett, M.A., Yates Professor of Classical Art and Archaeology

D. P. Craig, D.SC., F.R.I.C., Professor of Chemistry†

H. C. Darby, O.B.E., LITT.D., Professor of Geography

Florence N. David, D.SC., Professor of Probability and Statistics

W. R. Dean, M.A., Goldsmid Professor of Mathematics

M. B. Donald, M.SC., F.R.I.C., HON.M.I.CHEM.E., A.R.C.S., Ramsay Memorial Professor of Chemical Engineering

G. C. Drew, M.A., Professor of Psychology

W. B. Emery, M.B.E., M.A., D.LIT., F.B.A., F.S.A., Edwards Professor of Egyptology

L. D. Ettlinger, PH.D., F.S.A., Durning-Lawrence Professor of the History of Art

C. Fahy, M.A., PH.D., Lecturer in Italian

P. G. Foote, M.A., Professor of Old Scandinavian

Daryll Forde, PH.D., Professor of Anthropology†

D. B. Fry, PH.D., Professor of Experimental Phonetics

† Fellow of the College.

A. H. Gerrard, Professor of Sculpture

R. E. Gibbs, D.SC., F.INST.P., Reader in Physics and Tutor to Science Students†

J. A. B. Gray, SC.D., M.A., M.B., B.CHIR., Professor of Physiology

H. Grüneberg, PH.D., M.D., D.SC., F.R.S., Professor of Genetics

J. Hamilton, M.A., M.SC., PH.D., Professor of Physics

Sir William Holford, M.A., D.C.L., LL.D., D.LITT., P.P.R.I.B.A., M.T.P.I., F.I.L.A., A.R.A., Professor of Town Planning

S. E. Hollingworth, M.A., D.SC., Yates-Goldsmid Professor of Geology

R. A. Humphreys, O.B.E., M.A., PH.D., Professor of Latin American History

J. Hurstfield, D.LIT., Astor Professor of English History†

A. F. Huxley, M.A., D.SC., M.D., F.R.S., Jodrell Professor of Physiology

Raymond Irwin, M.A., F.L.A., Professor of Library Studies

E. R. H. Ivamy, PH.D., Professor of Law

B. Katz, M.D., PH.D., D.SC., F.R.S., Professor of Biophysics†

G. W. Keeton, M.A., LL.D., F.B.A., Professor of English Law

L. Margaret Kerly, M.A., PH.D., Reader in Biochemistry

E. H. Kossmann, LITT.D.(LEIDEN), Professor of Dutch History and Institutions

D. Lewis, D.SC., F.R.S., Quain Professor of Botany

The Rt Hon. Lord Llewelyn-Davies, M.A., F.R.I.B.A., Professor of Architecture

D. Lloyd, M.A., LL.D., Quain Professor of Jurisprudence†

Dame Kathleen Lonsdale, D.B.E., D.SC., F.R.S., Professor of Chemistry†

A. Maccoll, PH.D., D.SC., F.R.I.C., Professor of Chemistry

D. McKie, D.SC., PH.D., F.R.I.C., F.R.S.E., Professor of History and Philosophy of Science†

R. D. McLellan, PH.D., Senior Tutor and Senior Lecturer in Greek and Latin†

Sir Harrie Massey, D.SC., PH.D., LL.D., F.R.S., Quain Professor of Physics

W. R. Mead, M.SC.(ECON.), PH.D., Professor of Geography

A. D. Momigliano, M.A., D.LITT., F.B.A., Professor of Ancient History

J. L. Mongar, PH.D., Reader in Chemical Pharmacology

R. S. Nyholm, D.SC., F.R.I.C., F.R.S., Professor of Chemistry†

L. S. Penrose, M.A., M.D., D.SC., F.R.C.P., F.R.S., Galton Professor of Human Genetics

N. W. Please, B.SC., Senior Lecturer in Statistics

R. Powell, D.C.L., Professor of Roman Law

Randolph Quirk, M.A., PH.D., Professor of English Language

Constance M. Rigby, M.A., PH.D., Lecturer in Mathematics

C. A. Rogers, D.SC., F.R.S., Astor Professor of Mathematics†

K. F. Roth, B.A., M.SC., PH.D., F.R.S., Professor of Mathematics

E. C. Ryder, M.A., LL.B., Professor of English Law

H. O. Schild, M.D., PH.D., D.SC., Professor of Pharmacology

G. Schwarzenberger, PH.D., DR.JUR., Professor of International Law

† Fellow of the College.

J. W. Scott, B.A., A.L.A., Librarian

M. J. Seaton, PH.D., Professor of Physics

O. Skutsch, DR.PHIL., Professor of Latin

A. H. Smith, O.B.E., R.N.O., R.F., PH.D., D.LIT., LITT.D., FIL.DR., F.S.A., Quain Professor of English Language and Literature

S. Stein, PH.D., Professor of Hebrew

James R. Sutherland, M.A., B.LITT., LL.D., F.B.A., Lord Northcliffe Professor of Modern English Literature

O. J. L. Szemerényi, DR.PHIL., Professor of Comparative Philology

E. H. Thompson, O.B.E., B.A., F.R.I.C.S., Professor of Photogrammetry & Surveying

E. G. Turner, M.A., F.B.A., Professor of Papyrology

T. B. L. Webster, M.A., LITT.D., F.S.A., HON.R.A., Professor of Greek

R. Weiss, B.A., Professor of Italian

G. P. Wells, M.A., SC.D., F.R.S., Professor of Zoology

D. J. B. White, PH.D., Senior Lecturer in Botany

Elizabeth M. Wilkinson, PH.D., Professor of German

B. Woledge, M.A., D. DE L'UNIV., Fielden Professor of French Language and Literature

Richard Wollheim, M.A., Grote Professor of Philosophy of Mind and Logic

J. Z. Young, M.A., D.SC., F.R.S., Professor of Anatomy

APPENDIX III

HONORARY FELLOW AND FELLOWS

The following elections were made in 1964:

HONORARY FELLOW

Professor Sir Christopher (Kelk) Ingold, F.R.S., Professor Emeritus of Chemistry in the University of London and formerly Head of the Department of Chemistry, University College London and Director of the Chemical Laboratories.

FELLOWS

Professor Richard Evelyn Donohue Bishop, Kennedy Professor of Mechanical Engineering, University College London.

Dr Hugh Keith Cameron, Director for Development, General Electric Company (Engineering) Ltd.

Professor David Parker Craig, Professor of Chemistry, University College London.

Mr Albert James Hill, Chairman of Taylor Woodrow Construction Limited and a Director of Taylor Woodrow Limited.

Mr (Archibald) Laurence Patrick Kirwan, C.M.G., T.D., Director and Secretary of the Royal Geographical Society.

Major-General Ambrose (Neponucene Trelawney) Meneces, C.B., C.B.E., D.S.O., Commandant and Director of Studies at the Royal Army Medical College, Millbank.

Dr Joan Taylor, Bacteriologist and Director of the Salmonella Reference Laboratory of the Central Public Health Laboratories at Colindale.

Dr John Henry Walter, J.P., Headmaster of Minchenden Secondary School at Southgate.

APPENDIX IV

PRINCIPAL CHANGES IN THE ACADEMIC STAFF

FACULTY OF ARTS

ANTHROPOLOGY

Appointments: R. J. Brain, B.A. (Research Assistant), formerly research student in Department.

C. J. Jolly, B.A. (Research Assistant), formerly research student in Department.

I. M. Lewis, B.SC., B.LITT., D.PHIL. (Lecturer), from Lectureship in Social Anthropology, University of Glasgow.

Resignation: R. E. Bradbury, B.A., PH.D. (Lecturer), to Lectureship in Anthropology, Department of Sociology, Centre of West African Studies, University of Birmingham.

ARCHAEOLOGY

Appointment: J. P. Barron, M.A., D.PHIL. (Lecturer), from Lectureship in Latin, Bedford College.

ARCHITECTURE

Appointment: M. W. A. Cassidy, B.A. (Part-time Assistant Lecturer), had assisted with Hospital Research Project in Department.

EGYPTOLOGY

Appointment: H. S. Smith, M.A. (Reader in Egyptian Archaeology), from Lectureship in Egyptology at Christ's College, Cambridge.

ENGLISH LANGUAGE AND LITERATURE

Appointments: Mrs Isobel M. Armstrong, PH.D. (Assistant Lecturer), formerly held Senior Research Studentship at Westfield College.

H. T. Carvell, M.A. (Research Assistant), formerly held school teaching appointment.

D. A. Davy, B.A. (Research Assistant), formerly student in Department.

J. L. Svartvik, FIL.LIC. (Honorary Lecturer and Assistant Director, Survey of English Usage), formerly Honorary Research Assistant in Department.

D. M. Wilson, M.A., F.S.A. (Reader in Archaeology of the Anglo-Saxon Period), formerly Assistant Keeper at the British Museum.

Resignation: O. Knowles, B.A. (Assistant), to Assistant Lectureship, University of Hull.

FINE ARTS

Appointments: Michael Andrews (Part-time Assistant), formerly Visiting Teacher

in Department. Frank Auerbach, A.R.C.A. (Part-time Assistant), formerly Visiting Teacher in Department.

Resignations: A. M. Forge (Lecturer), to Headship of Department of Fine Arts, Goldsmiths' College.

S. E. Toulmin, M.A., PH.D. (Honorary Research Associate), Director of the Nuffield Foundation Unit for the History of Ideas.

GEOGRAPHY

Appointments: A. R. H. Baker, B.A. (Assistant Lecturer), formerly postgraduate student in Department.

J. H. Bird, B.A., PH.D. (Reader), formerly Lecturer at King's College, London.

H. J. Critchfield, M.A., PH.D. (Honorary Research Associate), Professor of Geography, Western Washington State College, U.S.A.

GERMAN

Appointments: C. Burgauner (Assistant), formerly Tutor at University of Munich.

Mrs Joyce P. Crick, M.A. (Part-time Assistant Lecturer), formerly Research Assistant in Department.

Mrs Ann C. Weaver, B.A. (Research Assistant), formerly Research Secretary, Institute of Germanic Studies, University of London.

Resignation: B. A. Rowley, M.A., PH.D. (Lecturer), to Senior Lectureship in German, School of European Studies, University of East Anglia.

GREEK

Appointments: Professor L. Pearson, M.A., PH.D. (Honorary Research Associate), Professor of Greek, Stanford University, U.S.A.

Professor L. J. D. Richardson, M.A. (Honorary Research Associate), formerly Professor of Greek, University College, Cardiff.

Resignation: G. H. Gellie, B.ED., M.A. (Honorary Research Associate), Associate Professor of Classics, University of Melbourne.

HISTORY

Appointments: R. R. Davies, B.A. (Assistant Lecturer), from Assistant Lectureship in History, University College of Swansea.

J. A. North, B.A. (Assistant Lecturer), from Lectureship, The Queen's College, Oxford.

Professor L. Pearson, M.A., PH.D. (see Greek).

ITALIAN

Appointment: J. M. Hatwell, B.A. (Assistant Lecturer), formerly student in Department.

LATIN

Appointment: Professor L. Pearson, M.A., PH.D. (see Greek).

LIBRARIANSHIP AND ARCHIVES

Appointment: Ia C. Thorold, B.A., F.L.A. (Lecturer), from Westminster Public Libraries.

PHILOSOPHY

Appointments: G. A. Cohen, B.A., B.PHIL. (Assistant Lecturer), formerly held Province of Quebec Postgraduate Scholarship, New College, Oxford.

Professor R. J. Fogelin, PH.D. (Honorary Research Associate), National Science Foundation Post-Doctoral Fellowship, from Claremont Graduate School, California.

H. D. Sluga, B.PHIL. (Lecturer), formerly held Postgraduate Scholarship, Balliol College, Oxford.

Resignation: B. A. O. Williams, M.A. (Lecturer), to Chair of Philosophy, Bedford College.

POLITICAL ECONOMY

Appointments: Victoria Chick, B.S., M.A. (Assistant Lecturer), formerly Part-time Lecturer at City of London College.

Mrs Tsu-Tung Emslie, B.SC. (Research Assistant), formerly Part-time Research Assistant in Department.

Resignations: D. R. Croome, B.A. (Research Assistant), to Teaching Fellowship, University of Pennsylvania.

D. Mazumdar, B.A., PH.D. (Lecturer), to Lectureship in Economics, London School of Economics.

S. G. Sturmey, M.EC., PH.D. (Reader), to Chair of Economics, University of Lancaster.

A. Sutherland, M.A. (Lecturer), to be Economic Consultant in the Economic Section of H.M. Treasury.

TOWN PLANNING

Appointments: M. J. Brown, A.R.I.B.A., M.T.P.I. (Senior Lecturer), formerly Senior Lecturer at The Polytechnic, Regent Street.

N. Lichfield, B.SC., PH.D., M.T.P.I., F.R.I.C.S., A.M.I.MUN.E. (Honorary Research Associate), engaged on research work in collaboration with the Department.

G. G. Pullen, B.A., A.M.T.P.I. (Lecturer), from County Planning Department, Hertfordshire County Council.

W. Scott, B.SC.(ECON.) (Honorary Research Associate), formerly Honorary Research Assistant in Department.

FACULTY OF LAWS

Appointments: J. W. Burton, B.A., PH.D. (Senior Lecturer), formerly Research Fellow, Australian National University, Canberra.

F. J. J. Cadwallader, LL.M. (Assistant Lecturer), formerly postgraduate student in Department.

Margaret G. Cowan, LL.B. (Assistant Lecturer), formerly Part-time Lecturer in Department.

H. Hanak, M.A. (Lecturer, jointly with School of Slavonic and East European Studies), formerly Lecturer in Department of Politics, University of Leicester.

R. G. Lloyd, C.B.E., M.A., B.SC., Q.C. (Honorary Research Associate), from private practice.

W. A. West, LL.M. (Honorary Lecturer), Lecturer at College of Estate Management.

Resignations: J. S. Coward, LL.B. (Joint Lecturer with the Police College, Bramshill), to private practice.
Mrs Jennifer Levin, LL.B. (Part-time Lecturer).
Susan Strange, B.SC.(ECON.) (Lecturer).

Retirement: R. Powell, D.C.L. (Professor of Roman Law).

FACULTY OF SCIENCE

ASTRONOMY

Resignation: R. H. Garstang, M.A., PH.D. (Reader), to Professorship of Astrophysics, University of Colorado.

BOTANY

Appointments: Professor G. A. Leisman, M.S., PH.D. (Honorary Research Associate), from Kansas State Teachers' College, U.S.A.
R. H. Wilson, B.A. (Research Assistant), formerly student at St John's College, Cambridge.

Resignations: J. W. Cowan, PH.D. (Quain Student in Biology), to Lectureship at King's College, London.
R. G. Stanley, PH.D. (Honorary Research Associate), U.S. Forest Experiment Station, Berkeley, U.S.A.

CHEMISTRY

Appointments: D. A. Anderson, M.D., F.R.C.S. (Honorary Research Associate), Chief Medical Adviser to the Salvation Army and Honorary Research Fellow of the Institute of Urology.
M. A. Bennett, PH.D. (Lecturer), formerly held honorary appointment in Department.
R. Bramley, M.SC., PH.D. (Lecturer), formerly held honorary appointment in Department.
H. M. R. Hoffmann, DIPL.CHEM., PH.D. (Lecturer), formerly held temporary appointment in Department.
Professor Y. Ishii, (Honorary Research Associate), Professor of Applied Organic Chemistry, Nagoya University, Japan.
R. A. Ross, M.SC. (Lecturer), formerly Petroleum Research Fund Fellow in Department.

EUGENICS, BIOMETRY AND GENETICS

Appointment: M. D. Crawfurd, M.B., B.S. (Senior Lecturer, jointly with University College Hospital Medical School).

GEOLOGY

Appointment: Marjorie Simpson, B.SC. (Research Assistant), formerly Research Assistant, Imperial College of Science and Technology.

HISTORY AND PHILOSOPHY OF SCIENCE

Retirement: D. McKie, D.SC., PH.D., F.R.I.C., F.R.S.E. (Professor of History and Philosophy of Science).

MATHEMATICS

Appointments: R. Capildeo, PH.D. (Lecturer), formerly Temporary Lecturer in Department.

M. E. O'Neill, M.SC., PH.D. (Lecturer), formerly Assistant Lecturer, Woolwich Polytechnic.

Retirement: W. R. Dean, M.A. (Goldsmid Professor of Mathematics).

PHYSICS

Appointments: F. W. Bullock, PH.D. (Lecturer), formerly held honorary appointment in Department.

A. Burgess, PH.D. (Lecturer), from Institute of Mathematical Sciences, New York University.

W. S. Woolcock, PH.D. (Lecturer), formerly Lecturer in Mathematics, University of Queensland.

Resignation: J. Hamilton, M.A., M.SC., PH.D. (Professor of Physics), to Professorship, Nordic Institute for Theoretical Atomic Physics, Copenhagen.

PSYCHOLOGY

Appointment: R. Maliphant, B.A. (Lecturer), formerly held honorary appointment in Department.

Resignation: D. A. Pond, M.D., F.R.C.P., D.P.M. (Part-time Lecturer), Department of Psychological Medicine, University College Hospital Medical School.

ZOOLOGY AND COMPARATIVE ANATOMY

Appointments: Father H. W. Rigney, S.V.D., B.A., M.SC., PH.D. (Honorary Research Associate), Rector of San Carlos University, Cebu City, Republic of the Philippines.

Mrs Jean M. Trent, B.SC. (Research Assistant), formerly held temporary appointment in Department.

Resignation: Professor T. T. Flynn, M.B.E., D.SC. (Honorary Research Associate).

Death: Elizabeth A. Fraser, D.SC. (Honorary Research Associate).

FACULTY OF ENGINEERING

CIVIL AND MUNICIPAL ENGINEERING

Appointments: J. R. F. Arthur, B.A., PH.D. (Lecturer), formerly I.C.I. Research Fellow, University of Cambridge.

T. Barta, DIPL.ING., M.I.A.B.S.E. (Lecturer), formerly Senior Research Officer, Rumanian Building Research Institute, Timisoava.

J. M. T. Thompson, M.A., PH.D. (Lecturer), formerly Research Fellow at Peterhouse, Cambridge.

MECHANICAL ENGINEERING

Appointments: W. H. Barclay, M.SC. (Lecturer), formerly Performance Engineer, Rolls Royce Limited.

G. M. C. Lee, B.SC. (Lecturer), formerly Design Engineer, Imperial Chemical Industries Limited (Paints Division).

S. Mahalingam, B.SC.(ENG.), PH.D., A.M.I.MECH.E. (Honorary Research Associate). Dominion Travelling Fellowship of the Nuffield Foundation, from University of Ceylon.

J. W. Pendered, B.SC.(ENG.), PH.D. (Lecturer), formerly held research appointment in Department.

ELECTRICAL ENGINEERING

Appointments: E. A. Ash, PH.D., D.I.C., A.C.G.I. (Senior Lecturer), formerly Head of High Frequency Electron Devices Laboratory, Standard Telecommunication Laboratories.

J. M. Bullingham, M.SC. (Lecturer), from Instrumentation Division, Associated Electrical Industries Limited, Manchester.

M. G. F. Wilson, B.SC.(ENG.), PH.D., A.M.I.E.E. (Lecturer), formerly Research Engineer, Associated Electrical Industries Research Laboratory, Aldermaston.

CHEMICAL ENGINEERING

Resignations: R. Chayen, B.SC., PH.D., D.I.C., F.R.I.C., A.R.C.S. (Lecturer), to be Senior Research Biochemist at Municipal (Ichilov) Hospital, Tel Aviv.

K. Ridgway, B.A., B.SC., PH.D., A.M.I.CHEM.E., A.R.I.C. (Lecturer), to Senior Lectureship, School of Pharmacy.

FACULTY OF MEDICAL SCIENCES

ANATOMY AND EMBRYOLOGY

Appointments: F. S. Goldby, M.B., B.CHIR. (Assistant Lecturer), formerly House Surgeon, King's College Hospital, London.

E. C. B. Hall-Craggs, M.A., M.B., B.CHIR. (Lecturer), formerly Lecturer in Anatomy at Makerere University, Kampala, Uganda.

P. K. Thomas, M.D., M.R.C.P. (Honorary Research Associate), formerly Honorary Research Assistant in Department.

R. A. Weiss, B.SC. (Assistant Lecturer), formerly M.R.C. postgraduate student in Department.

Resignations: R. W. Guillery, B.SC., PH.D. (Reader), to Department of Anatomy, University of Wisconsin.

W. R. Hayhow, M.B., B.S. (Honorary Research Associate), Senior Lecturer in Physiology, University of Sydney.

BIOCHEMISTRY

Appointments: K. Brocklehurst, B.SC., PH.D. (Research Assistant), formerly Post-doctoral Research Fellow, University of Manchester.

K. L. Manchester, M.A., PH.D. (Lecturer), formerly Research Fellow, Sidney Sussex College, Cambridge.

M. A. Rosemeyer, PH.D. (Lecturer), formerly Research Fellow, Birkbeck College.

BIOPHYSICS

Retirement: A. C. Downing (Assistant).

PHARMACOLOGY

Appointment: L. B. Strang, M.D., M.R.C.P. (Honorary Research Associate), Reader in Paediatrics, University College Hospital Medical School.

PHYSIOLOGY

Appointments: Barbara E. C. Banks, M.SC., PH.D. (Lecturer), formerly held honorary appointment in Department of Chemistry.

J. Morley, B.SC. (Assistant Lecturer), formerly held M.R.C. Training Scholarship in Department.

Death: L. E. Bayliss, B.A., PH.D., F.R.S.E. (Honorary Research Associate).

APPENDIX V

PUBLIC LECTURES

COMMEMORATION LECTURES

FOURTH CENTENARY OF THE BIRTH OF WILLIAM SHAKESPEARE

Series of lectures on 'Shakespeare's World'
Sir Ifor Evans: 'Shakespeare's World'
Professor Joel Hurstfield: 'The Elizabethan People in the Age of Shakespeare'
Professor James R. Sutherland: 'How Shakespeare's Characters Talk'
Mrs Winifred M. T. Nowottny: 'Shakespeare's Tragedies'
Professor Arthur Brown: 'Shakespeare's Treatment of Comedy'
Professor Geoffrey Bullough, King's College London: 'The Uses of History'
Miss Hilda Hulme: 'Shakespeare's Language'
Professor Terence Spencer, Birmingham: 'The Course of Shakespeare Criticism'
Dr C. V. Wedgwood: 'The Close of an Epoch'

ENDOWED LECTURES

BOURKE LECTURE OF THE FARADAY SOCIETY

Professor Stuart A. Rice, Chicago: 'Exciton-Exciton Interactions and Electronic States of Molecular Crystals'

COMMONWEALTH FUND LECTURES

Professor H. S. Commager, Amherst College, Massachusetts: 'America and the Enlightenment' (four lectures)

DOROTHEA COKE MEMORIAL LECTURE IN NORTHERN STUDIES

Professor G. N. Garmonsway, King's College London: 'Canute and his Empire'

HOBHOUSE MEMORIAL LECTURE

Professor H. R. G. Greaves, London School of Economics: 'Democratic Participation and Public Enterprise'

SETON MEMORIAL LECTURE

Mrs Rosalind B. Brooke: 'Hugh of Digne: forerunner of the Franciscan Spirituals'

SHEARMAN MEMORIAL LECTURES

Professor A. J. Ayer, Oxford: 'Probability and Evidence' (four lectures)

INAUGURAL LECTURES

Professor A. Maccoll, Professor of Chemistry: 'Space and Time in Chemistry'
Professor G. Schwarzenberger, Professor of International Law: 'The Misery and Grandeur of International Law'

LUNCH-HOUR LECTURES

Professor R. L. F. Boyd: 'Space Research—University College'
Mr R. Browning: 'Athens in the Middle Ages'
Dr J. W. Burton: 'The New Nations'
Dr W. G. Chaloner: 'Fossil Hayfever'
Professor M. B. Donald: 'The Elizabethan Scandals over Monopoly'
Mr B. D. Greenslade: 'Life and Art: the Biography of Novelists'
Dr R. L. Heathcote: 'Terra Australis Incognita: Past and Present'
Dr W. Glyn Jones: 'Søren Kierkegaard the Dane'
Dr H. Kalmus: 'Animals as Mathematicians'
Mr L. B. Keeble: 'Housing Layout: what does the customer want?'
Mr T. Kiang: 'An Old Chinese way of getting $\frac{4}{3}\pi r^3$'
Dr. C. D. King: 'A Well-Oiled Idealist: Jean Anouilh'
Mr R. M. Maxwell: 'The Conquest of Space'
Dr D. Mazumdar: 'Indian Economic Development'
Mr S. R. Montgomery: 'Engineering and Medicine'
Dr T. A. Quilliam: 'Information from the Skin: how is vibration detected?'
Mr M. P. Rhodes: ' "The Two Nations"—Dickens and Mrs Gaskell'
Dr R. W. R. Rutland: 'The Atacama Desert—Provider of Mineral Wealth'
Dr B. Schlaffenberg: 'Inventing the City of the Future'
Dr W. A. Smeaton: 'Early Balloon Ascents, 1783–1795'
Dr F. M. L. Thompson: 'Garibaldi's Visit to England, 1864'
Dr P. J. Ucko: 'The Significance of Prehistoric Human Figurines'
Dr J. L. Watling: 'Can there be two things exactly alike?'
Dr C. V. Wedgwood: 'Edward Gibbon and the *Decline and Fall*'
Mr J. R. Weeks: 'Obsolete Architecture'
Professor R. Weiss: 'The Renaissance Discovery of Greek Antiquity'
Dr E. Wiesenberg: 'The Dead Sea Scrolls and *the End of Days*'
Dr D. Wilkie: 'Some Properties of Living Matter'
Mr B. A. O. Williams: 'The Mystery of Descartes'
Mr M. Winterbottom: 'Roman Pessimism in the First Century A.D.'

LECTURES ARRANGED BY COLLEGE DEPARTMENTS

This list includes only those lectures given by visiting lecturers or by honorary members of the staff.

BIOCHEMISTRY

Dr B. Cinader, Toronto: 'Some Aspects of the Interaction between Enzyme and Antibody'
Dr M. H. Richmond, National Institute for Medical Research: 'Biological Activity of Structural Analogues' (two lectures)
Dr J. R. Tata, National Institute for Medical Research: 'The Action of Thyroid Hormones' (two lectures)

LAWS

Professor H. R. Gray, Canterbury, New Zealand: 'Strict Liability for Highway Accidents'

Mr R. B. Lillich, Syracuse: 'International Claims: a Comparative Study of United Kingdom and United States Practice'

MATHEMATICS

Professor Béla Szökefalvi-Nagy, Szeged: 'Dilations of Hilbert Space Operators'

APPENDIX VI

NUMBERS OF STUDENTS, SESSION 1963–64

	Under-graduates	*Post-graduates*	*Totals*
Faculty of Arts	914 (274)	274 (68)	1,188 (342)
Department of Political Economy ..	140 (4)	10 (4)	150 (8)
Slade School of Fine Art	185 (13)	33 (12)	218 (25)
Bartlett School of Architecture	79 (—)	18 (1)	97 (1)
Department of Town Planning	39 (39)	112 (93)	151 (132)
School of Librarianship and Archives ..	— (—)	59 (11)	59 (11)
	1,357 (330)	506 (189)	1,863 (519)
Faculty of Science	754 (3)	432 (84)	1,186 (87)
Faculty of Medical Sciences	257 (18)	10* (—)	267 (18)
Faculty of Engineering	290 (1)	121 (8)	411 (9)
Faculty of Laws	290 (32)	107 (33)	397 (65)
	2,948 (384)	1,176† (314)	4,124 (698)

* This figure excludes 63 full-time and 2 part-time postgraduate students working in the College Faculty of Medical Sciences who were registered in the University Faculty of Science.

† Of this number 847 were registered for higher degrees of the University of London; the remainder were working for higher diplomas of the University or of the College or higher degrees of other universities, engaged in research work, or attending postgraduate lecture courses.

The figures in brackets indicate the number of part-time students included in the total under each head.

APPENDIX VII

GEOGRAPHICAL DISTRIBUTION OF STUDENTS, SESSION 1963–64

	Under-graduates	*Post-graduates*	*Totals*
UNITED KINGDOM			
London	271	157	428
Home Counties (30 miles radius)	701	272	973
Remainder of United Kingdom	1,603	314	1,917
BRITISH COMMONWEALTH OF NATIONS			
Australia	3	21	24
Canada	6	38	44
Ceylon	6	10	16
Ghana	8	8	16
Hong Kong	6	6	12
India	17	47	64
New Zealand	4	10	14
Nigeria	47	26	73
Pakistan	3	26	29
Singapore	6	5	11
18 other countries	38	23	61
OTHER PARTS OF THE WORLD			
Egypt	2	21	23
France	50	1	51
Germany	28	6	34
Greece	2	9	11
Iran	6	8	14
Iraq	4	12	16
Israel	5	7	12
South Africa	6	11	17
Spain	6	7	13
Sweden	12	2	14
U.S.A.	48	54	102
41 other countries	60	75	135
	2,948	1,176	4,124

SUMMARY

United Kingdom	3,318
British Commonwealth of Nations	364
Other Parts of the World	442
	4,124

APPENDIX VIII

APPLICATIONS AND ADMISSIONS

SESSION 1963–64

FIRST DEGREE AND FIRST DIPLOMA STUDENTS

FACULTY OF ARTS	*Applicants for Admission*	*Students Admitted October* 1963
B.A. Honours		
Anthropology	58	8
Dutch	1	—
English	528	39
French	511	33
Geography	178	25
German	182	26
Greek and Latin	162	14
Hebrew	8	4
History	404	36
Italian	16	5
Philosophy	44	17
Philosophy and Greek	5	—
Philosophy and Economics	59	5
Philosophy and Psychology	64	3
Psychology	106	7
Scandinavian Languages	16	10
	2,342	232
B.Sc.(Econ.)	1,200	47
University Diploma in Fine Art	506	56
B.A. Honours in Architecture	119	8

FACULTY OF SCIENCE		
B.Sc.(Special)		
Anthropology	16	1
Astronomy	20	4
Biochemistry	126	20
Botany	95	9
Chemistry	710	43
Geography	178	20
Geology	113	6
Mathematics	725	39
Microbiology	99	7
Physics	711	47

B.Sc. (Special)—cont.	*Applicants for Admission*	*Students Admitted October* 1963
Physiology	40	12
Psychology	175	19
Statistics	63	16
Zoology	267	10
	3,338	253
B.Sc.(Architecture) with Honours	241	21
FACULTY OF LAWS		
LL.B.	850	86
FACULTY OF ENGINEERING		
B.Sc.(Eng.)		
Civil & Municipal Engineering	422	28
Electrical Engineering	385	31
Mechanical Engineering	345	22
B.Sc.(Engineering) Degree in Chemical Engineering	338	34
	1,490	115
FACULTY OF MEDICAL SCIENCES		
2nd Examination for Medical Degrees ..	1,132	102
2nd Examination for Dental Degrees ..	322	50
	1,454	152
Totals	11,540	970

APPENDIX IX

UNIVERSITY HONOURS

HIGHER DEGREES

FACULTY OF ARTS

D.Lit. *History:* J. Hurstfield. [1]

Ph.D. *Architecture:* H. G. Dunn, Z. H. Shafey. *Classics:*†‡ Shirley A. Barlow, *English:* A. W. Brink, R. J. F. Madden, P. A. O'Flaherty, V. G. O'Neill. C. H. Pullen, D. K. C. Todd. *French:* F. C. Mayberry, Lucy J. Newton. *General Linguistics and Phonetics:* N. V. Smith. *Geography:* A. R. H. Baker. *Greek:* N. Hourmouziades, G. Siphakis. *History:* K. M. Baker, C. H. Church, D. C. Higgs, J. Q. C. Mackrell. *Philosophy:* O. P. Stutchbury. *Phonetics:* Everdina A. Lawson. *Psychology:* A. S. Boulos, T. S. Collett, Lyyli Elliott, H. L. Friedman, R. Hasan, K. Hope, N. S. Kirk, R. B. Ross, Pamela A. Sharratt, Uma Sinha. [31]

M.A. *Classics:* Margaret A. Bedggood. *English:* Patricia M. Barr, A. Busza, B. C. Haylett, Marie V. Lavis, *G. N. Leech, *Margaret Orme, Patricia M. Stoneman, E. O. O. Winter. *General Linguistics and Phonetics:* Duong-Duc-Nhu. *Geography:* M. D. Avery, B. Caton, E. A. Cox, B. R. Dittmer. *Psychology:* Elda V. Phipps, †Bernadette Spain. [16]

FACULTY OF ECONOMICS

M.Sc. S. A. Al-Ja'fri, *A. Marquez. [2]

FACULTY OF LAWS

Ph.D. R. K. Bahl, Laura M. Mulchansingh, E. E. J. Okereke, M. S. K. Yousufzai. [4]

LL.M. M. Y. M. Abdel Aa'l, C. O. Akpamgbo, R. H. F. Austin, M. L. Bagree, *E. D. Brown, S. N. Chowdhury, R. M. Husain, G. I. Ikokwu, K. U. R. Khan, B. J. Knight, G. G. Lee, E. A. Mabruk, M. L. Marasinghe, A. Mitra, I. L. Ohene-Djan, C. I. Pordham, R. C. Smith, ‡U. O. Umozurike, Patricia Walker, M. A. Yesufa. [20]

FACULTY OF SCIENCE

D.Sc. *Biochemistry:* E. M. Shooter. *Chemistry:* D. J. Millen. *Crystallography:* H. Judith Milledge. *Gerontology:* A. Comfort. *Zoology:* H. Fox. [5]

Ph.D. *Anatomy:* R. D. Lund. *Astronomy:* B. Warner. *Biochemistry:* G. F. Bryce, F. J. Darby, S. S. Tate, R. Williamson. *Biophysics:* Sally G. Page. *Botany:* Lorna A. Casselton, J. W. Cowan, G. F. Israelstam, R. D. E. Jayasekera, Dinah C. McLellan, I. Morris, B. A. Whitton. *Chemical Engineering:* V. J. Ibberson. *Chemistry:* D. S. Alderdice, ‡T. O. Bamkole. Madeline R. Brickman, K. S. Buckton, F. R. Burden, E. C. J. Coffee, J. H. Fendler, C. R. Hart, Margaret M. Howard, E. Kalatzis, D. Kellerman, D. L. Kepert, K. Khaleeluddin, K. A. R. Mitchell, R. M. G. Roberts, S. S. Sandhu, G. A. Webb. *Crystallography:* †J. C. Elliott.

*Awarded a mark of distinction. †Also registered at another Institution. ‡External student.

Electrical Engineering: M. J. Barrett, P. Magoulas. *Geography:* T. J. Chandler, P. N. Hur, †‡R. K. Udo. *Geology:* R. F. A. Clarke, P. W. Holmes, J. M. Konig, P. T. Walsh. *Mathematics:* B. L. Luffman. M. E. O'Neill. *Microbiology:* Stella Neale. *Micropalaeontology:* W. G. Cordey. *Pharmacology:* P. J. Martin. *Physics:* Laila F. Abu-Hadid. F. A. M. A. A. Ayoub, Lily B. Bishara, R. Browning, V. A. Bull, M. E. Denning, P. H. Edmonds, D. G. Hummer, M. A. Hussain, D. C. Imrie, J. V. Ireland, V. S. Kathirgamanathan, C. B. Lucas, G. C. Oades, R. M. Pengelly, C. J. Robinson, I. H. Sloan, D. G. Thompson, J. A. Tully, L. L. J. Vick, R. N. F. Walker, T. R. Willitts. *Physiology:* Lynn J. Bindman, B. S. Meldrum. *Psychology:* E. M. Coles, M. D. Vinegrad. *Zoology:* M. A. Edidin. [74]

M.Sc. *Anthropology:* *A. D. Sanders. *Biochemistry:* T. M. N. Al-Khayat, R. P. Bywater, Naomi J. David, Honor G. P. Dixon, G. I. Forrest, J. V. Gosling, J. B. Hudson, Margaret Johns, Zeinab A. el M. S. Marei, D. H. Metz, J. P. P. V. Monjardino, A. R. Njogu, T. P. Stein, Frances A. Stephenson, J. A. Sturman, Shan Walters, J. R. Tringham. *Chemistry:* Shirley E. Greenwood. *Geography:* Joan Chibnall, *R. U. Cooke. I. Newton, D. A. White. *Geology:* M. J. Fisher, J. C. Parmenter, *History and Philosophy of Science:* J. M. Dubbey, A. H. Elzinga, P. R. K. Gent. *Mathematics:* M. A. H. Beg, †G. L. Holland. *Microbiology:* Julia K. Cooper, Angela Fisher, A. P. Maule. *Physics:* D. E. Fisher, P. D. Kapadia, R. S. H. Somper. *Physiology:* M. F. C. Crick, Venetia M. King, S. Salmons, C. A. Vernon. *Statistics:* V. Ramesan. [41]

FACULTY OF ENGINEERING

Ph.D. *Chemical:* D. Singh. *Civil:* S. Abbu-Sitta, J. M. Brown, I. Sholji. *Electrical:* J. C. Beal, S. H. Chisholm, J. M. Hale, S. V. Potter, E. N. Reynolds, P. A. A. Vuorinen, J. Webber, P. J. Wood. *Mechanical:* J. W. Pendered. *Photogrammetry:* F. A. A. F. Amer. [14]

M.Sc. *Chemical:* Goh Seng Chee, H. K. Sim. *Mechanical:* R. F. le Feuvre. [3]

FACULTY OF MEDICINE

Ph.D. *Pharmacology:* M. H. Lader, B. A. V. Perera. [2]

UNIVERSITY POSTGRADUATE STUDENTSHIPS

Anatomy: A. R. Lieberman. *Anthropology:* Sheila G. Weir. *Archaeology:* Alix MacSweeney. *Botany:* C. L. F. Woodcock. *Chemistry:* R. G. Coombes. *English:* Patricia A. Pinsent. *History:* Patricia C. Vanags. *Mathematics:* D. G. Larman.

UNIVERSITY STUDENTSHIPS

Anatomy: S. M. Zeki. *Chemistry:* P. D. Dacre, C. G. Hull. *Engineering:* Mok Chuk Kng. *English:* Celia J. Watkin (and George Smith Studentship). *Fine Art:* M. J. Kenny. *French:* Denise E. M. N. Muller. *Geography:* H. D. Foster, Carolyn M. Gittins. *Hebrew:* Judith Howitt. *Physics:* H. Osborn (and Granville Studentship). *Physiology:* B. Lynn.

*Awarded a mark of distinction. †Also registered at another Institution. ‡External student.

APPENDIX X

COLLEGE AWARDS TO STUDENTS

I.—ENTRANCE EXHIBITION

Librarianship Exhibition.—Lesley E. Forbes.

II.—OTHER SCHOLARSHIPS AND DISTINCTIONS

Anatomy Class Prizes.—Medical: R. O. McKeran. *Dental:* Diana J. Brown.
Babcock & Wilcox Medal & Prize (*Mechanical Engineering*).—G. Randall.
Sir Banister Fletcher Prize & Medal (*Architecture*).—B. B. Nutt and D. C. Pearson, medal each and prize equally divided.
Herbert Batsford Prize (*Architecture*).—F. R. Wellburn.
Thomas Witherden Batt Scholarship (*Science*).—D. Hallett, Anne Ladbrook.
The Bayliss-Starling Memorial Scholarship (*Physiology & Biochemistry*).—B. Lynn.
Francis Perch Bedford Prize (*Zoology*).—R. S. Phillips.
Ada Heather Bigg Prize (*Economics*).—C. J. Paton.
Bonney Prize (*Geology*).—M. A. Woollands.
Brodrick-Parry Prize (*Geography*).—P. A. Stott.
Margaret Browne Studentship (*Zoology*).—Susan E. Largen.
'The Builder' Prize (*Architecture*) (December 1963 award).—J. Leach.
Bunnell Lewis Prize for Latin Verse.—G. A. Calver, half prize.
Carey Foster Research Prize (*Physics*).—D. C. Imrie and D. J. Miller (1962–63 award).
The Chadwick Medal & Prize (*Civil Engineering*).—N. E. Blow.
Churchill-Jenkinson Prize (*Archive Administration*).—Penelope A. Rundle.
Antonio Cippico Prize (*Italian*).—Ann D. Collier and Rosemary J. Metzner, prize equally divided.
Lilian Clarke Prize (*Botany*).—Brenda Matfield.
Clinton Prize (*Electrical Engineering*).—T. F. Smith.
Cowley Prizes.—Librarianship—Jessie F. F. Blackwell and Patricia M. Cowan. *Archive Administration.*—Anne Caiger and Monica A. Ory, prize equally divided.
Dawes Hicks Scholarship in Philosophy.—N. Sivasambu.
Dolley Memorial Prize (*History*).—M. J. Kellett.
Donaldson Medal (*Architecture*).—R. A. Darke.
Early English Text Society's Prize.—B. D. Zander.
Foyle Prize (*Latin*).—A. Woolley.
Stephen Glanville Memorial Scholarship (*Egyptology*).—Janine D. Bourriau.
Goldsmiths' Company's Postgraduate Studentship in London History.—R. L. Brown.
Edith Goodyear Prize (*Geology*).—M. J. Poole.
Violet Hall Prize (*French*).—Ruth H. Thomas.
Archibald P. Head Memorial Medal & Prize (*Mechanical Engineering*).—J. G. Dew.
Heimann Medal (*German*).—Pamela Brown.
Elsie Hitchcock Prize (*English*).—L. A. Dunkling.
John Oliver Hobbs Memorial Scholarship in Modern English Literature.—Gloria R. Cigman.
Hollier Scholarship (*Greek*).—Dŭsanka Vŭcković-Todorović.
Hollier Scholarship (*Hebrew*).—J. P. Reeves.

R. B. Hounsfield Scholarship in Traffic Engineering.—P. R. Stopher.
R. B. Hounsfield Prize in Traffic Engineering.—P. R. Stopher.
Joseph Hume Prize in Jurisprudence.—C. Arnold.
Hurst Prize in English Law.—P. T. O'Neill.
Sir Hilary Jenkinson Scholarships in Archive Administration.—Brenda R. Chapman, Joan M. Gibb, C. A. McLaren, Sheila J. MacPherson, S. C. Newton, Felicity Ranger, W. A. L. Seaman, Sheila D. Thomson and Marjorie Walker.
Jevons Memorial Scholarship in Economic Science.—J. M. A. Gee.
Jolowicz Prize (*Roman Law*).—M. R. Freedland.
Ker Memorial Prize (*English*).—M. E. J. Jensen.
Leverhulme Studentships in Chemical Engineering.—K. J. McNaughton and R. E. Spier.
Sir John MacAlister Medal (*Librarianship*).—B. Naylor.
Betty Malcolm Scholarship in Decorative Painting.—Jean Michaelson.
Malden Scholarship (*Greek*).—D. P. Stanley-Porter.
Sir William Meyer Prize (*Geography*).—A. D. M. Phillips.
Sir William Meyer Essay Prize (*Geography*).—H. D. Foster and J. D. B. Sheail, prize equally divided.
Sir William Meyer Prize (*History*).—M. E. Speight.
Sir William Meyer Travelling Studentships (*History*).—D. Elliott, J. H. Gregory, K. Hodgkinson, Irene Lewis, F. R. V. Milne and R. Powell.
John Stuart Mill Scholarship in Philosophy of Mind and Logic.—N. Sivasambu.
Momber Scholarship in Physics.—H. Osborn.
Rosa Morison Memorial Medal (*Arts*).—P. N. Johnson-Laird.
Rosa Morison Prize in Anthropology.—Rosalind Horner.
Rosa Morison Scholarship in English Language and Literature.—Josephine Evetts.
Morley Medal (*Modern English Literature*).—A. J. Sinfield.
Margaret Murrey Prize in Egyptology.—Anne Millard.
Melvill Nettleship Prize for Figure Composition.—R. Atkins and June R. Collier, prize equally divided.
Physiology Prizes.—*Medical:* G. S. Stein. *Dental:* B. Goode.
Platt Prizes (*Greek*).—J. A. Butterworth and R. B. Todd.
Pollard Prize (*History*).—A. Dures.
Quain Studentship in Biology.—A. W. Robards.
Quain English Essay Prize.—Gloria R. Cigman.
Ramsay Memorial Medal (*Chemistry*).—M. R. Philpott.
Ricardo Scholarship (*Political Economy*).—J. M. A. Gee.
Mary Rischgitz Prize (*Fine Art*).—L. J. Blythe.
Graham Robertson Travelling Scholarship (*Fine Art*).—B. F. Joy.
Robert Ross Scholarship in Fine Art.—J. E. Keys.
Hester Rothschild Scholarship (*Hebrew*).—J. P. Reeves.
L. M. Rothschild Scholarship (*French*).—G. C. Jacobs.
Slade Prizes.—Pauline Aitken and D. J. Carr.
Slade Scholarships (*Fine Art*).—M. Blond, R. Griffiths, Antonia N. Hudson Shaw, F. O. MacColuim, Andrea Moering.
Steer Prizes (*Fine Art*).—D. J. Carr and June R. Collier.
Stevenson Prize (*Applied Mathematics*).—I. R. Clarkson.
Suckling Memorial Prize (*Practical Anatomy*).—R. A. Jones.
Sully Scholarship (*Psychology*).—P. N. Johnson-Laird.
Sir Andrew Taylor Prize (*Architecture*).—J. W. A. Cox and J. E. Fraser, prize equally divided.

Taylor Woodrow Travelling Scholarship (*Civil Engineering*).—R. M. W. Horner.
Henry Tonks Prize (*Fine Art*).—J. H. McFaul.
Tuffnell Scholarship (*Chemistry*).—G. C. Hull.
Ellen Watson Memorial Scholarship in Applied Mathematics.—K. McCann.
The Audrey Wykeham Prize (*Fine Art*).—Margaret Benyon.

APPENDIX XI

FIRST DEGREE EXAMINATION RESULTS

FACULTY OF ARTS

B.A. Honours	*1st Class Honours*	*2nd Class Honours Upper Div.*	*2nd Class Honours Lower Div.*	*3rd Class Honours*	*Total*
Anthropology	—	4	4	1	9
Classics	2	5	4	3	14
Dutch	—	—	1	—	1
English	2	12	21	5	40
French	4	9	13	1	27
Geography	—	8	14	3	25
German	1	10	5	1	17
Hebrew	1	2	1	—	4
Hebrew and Assyrian	—	1*	—	—	1
History	4	12	14	4	34
Italian	—	1	—	—	1
Philosophy	—	5	2	—	7
Philosophy and Economics	—	2	2	—	4
Philosophy and Psychology	—	—	1	—	1
Psychology	2	4	6	1	13
Scandinavian Languages	—	2	1	1	4
	16	77	89	20	202

B.A. Aegrotat	*Pass*	*Total*
Italian	1	1

	1st Class Honours	*2nd Class Honours*	*3rd Class Honours*	*Total*
B.A. Honours in Architecture (Old Regulations)	1	5	3	9

	1st Class Honours	*2nd Class Honours Upper Div.*	*2nd Class Honours Lower Div.*	*3rd Class Honours*	*Total*
B.A. Honours in Architecture (Revised Regulations)	—	4	—	1	5

FACULTY OF LAWS

	1st Class Honours	*2nd Class Honours Upper Div.*	*2nd Class Honours Lower Div.*	*Pass*	*Total*
LL.B.	2	13	43	21	79

* Also registered at another Institution.

FACULTY OF SCIENCE

B.Sc.(Special)	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
Anatomy	6	5	1	—	—	12
Anthropology	—	1	1	2	—	4
Astronomy	—	2	1	1	—	4
Biochemistry	3	4	2	2	—	11
Botany	1	4	4	—	—	9
Chemistry	9	7	9	9	3	37
Geography	2	4	12	—	—	18
Geology	1	4	1	2	—	8
Mathematics	4	2	13	9	—	28
Physics	15	13	8	8	1	45
Physiology	1	7	4	1	—	13
Psychology	2	8	4	2	—	16
Statistics	2	3	6	3	—	14
Zoology	2	2	3	4	—	11
	48	66	69	43	4	230

B.Sc. Degree	Pass	Total
Biochemistry	2	2
Mathematics	5	5
Physics	1*	1
Physiology	2	2
	10	10

	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Total
B.Sc. (Architecture) with Honours	1	—	1	2	4

FACULTY OF ENGINEERING

	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	Pass	Total
B.Sc. (Engineering)	3	11	16	17	47
B.Sc. (Engineering) Chemical Engineering	2	6	5	10	23

FACULTY OF ECONOMICS

	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
B.Sc.(Economics) (Old Regulations)	—	1	4	—	3	8
B.Sc.(Economics) (Revised Regulations)	—	7	18	11	2	38

FACULTY OF MEDICINE

Second Examination for Medical Degrees: 77 students passed.

*Also registered at another Institution.

BENEFACTIONS AND DONATIONS

The College Committee makes grateful acknowledgment of the following gifts:

Admiralty

(1) A grant of £3,400 for two years from 1 January 1964 for research in the Department of Electrical Engineering into plasma phase shifter.

(2) A grant of £1,856 for one year from 1 January 1964 for theoretical and experimental study in the Department of Electrical Engineering of correlation techniques for time delay measurement.

Agricultural Research Council

A grant not exceeding £924 for one year from 1 October 1963 for research in the Department of Mechanical Engineering into the abrasive wear of metals by non-metals.

Albright and Wilson Limited

A donation of £5,000 by seven year covenant from 1964 towards the cost of the new Chemistry building.

American Chemical Society

A grant of $200 for one year from 19 June 1964 for a fellowship expenses grant in the Department of Chemistry.

The Anglo Peruvian Society

A donation of £300 for the Department of History to assist selected lecturers or students to visit Peru.

Anonymous

(1) A further donation of £341,000 for a hall of residence for 218 men students on the Whitcher Place site.

(2) A donation of £2,000 for the Library in response to the correspondence in *The Times* about the difficulties being sustained by University libraries.

(3) A donation of £1,000 per annum by seven year covenant from 1 June 1964 and a further £1,000 to be used in the first instance for the benefit of the Committee planning the definitive edition of Bentham's Works and to be used from time to time at the Provost's discretion for other purposes for which funds cannot be obtained from public sources.

(4) A gift of £450 for the Department of Mathematics to endow a 'Stevenson Prize' in memory of the late Mr A. C. Stevenson.

(5) A gift of £5 for the School of Librarianship and Archives to augment the Cowley Prize in Librarianship for 1963.

(6) A gift of some silver plated candelabra by a member of the Council of the Association of Friends.

Associated Rediffusion Limited

A grant of £500 for the year 1963–64 for a maintenance scholarship for a student in the Slade School of Fine Art.

The William Waldorf Astor Foundation

A grant of $1,350 to enable a postgraduate student in the Department of History to go to Mexico in the autumn.

Sir Sydney Barratt

A gift to the College of a silver centre piece.

Professor H. Hale Bellot

A donation of £200 to the Department of History for the American History Fund for the Library, and the Institute of Historical Research.

British Diabetic Association

A grant of £750 for one year from 1 February 1964 towards research expenses of a member of staff of the Department of Biochemistry.

British Empire Cancer Campaign

(1) A grant of £2,353 for one year from 1 October 1963 for cancer research in the Department of Pharmacology.

(2) A grant of £1,245 for one year from 1 October 1963 for chemical study in the Department of Chemical Engineering of lipid-protein complexes extractable from normal and cancerous lungs.

(3) Grants of £1,129 and £163 for one year from 1 October 1963 for research in the Department of Anatomy and Embryology on nucleic acids in embryonic cells.

British Glues and Chemicals Limited

A grant of £575 for one year from 1 October 1963 for a research studentship in the Department of Chemical Engineering.

British Leprosy Relief Association

A donation of £100 towards expenses incurred by a member of staff in the Department of Biochemistry.

British Titan Products Company Limited

A grant of £1,250 per annum for three years from 1 July 1964 for a post-doctoral research fellowship in the Department of Chemistry,

Cement and Concrete Association

A grant of £250 for one year from 1 October 1963 for research in the Department of Civil and Municipal Engineering in concrete technology.

Lieutenant Colonel B. E. Coke

A gift of £120 for the Department of Scandinavian Studies to cover the cost of the publication of the first Dorothea Coke Memorial Lecture.

The Commonwealth Fund

A grant of $1,500 per annum for three years from 1964–65 to 1967–68 for the Department of History to support a programme of seminar/colloquium in American history.

J. H. L. Cooper

A gift of a painting by Henry Wallis of Sir Flinders Petrie excavating in Thebes, Egypt.

Danish Government

A grant of £75 for one year from 1 October 1963 being a contribution towards providing the allowance payable to a Visiting Professor of Scandinavian Studies.

Department of Scientific and Industrial Research

(1) An additional grant of £240 for three years from 1 January 1961 for research in the Department of Physics into the few nucleon problem, non-local potentials and their application to nuclear scattering problems.

(2) An additional grant not exceeding £3,157 for seven years and seven months from 1 February 1961 for diffraction studies of molecular vibrations in crystals in the Department of Chemistry.

(3) An additional grant of £567 for three and a half years from 1 April 1961 for research by the Department of Physics into the interaction of high energy particles in nuclei and the properties of unstable particles produced in high energy interactions.

(4) An additional grant of £150 for two years from 1 January 1963 for an investigation in the Department of Physics involving measuring and data reduction concerned with bubble chamber photographs.

(5) A grant not exceeding £121,000 from 1 April 1963 for a space research programme in the Department of Physics.

(6) A grant not exceeding £30,000 for four years and two months from 1 June 1963 for investigation in the Department of Zoology of cell surface in development.

(7) A grant not exceeding £15,625 for two years from 1 July 1963 for purchase by the Department of Chemistry of a nuclear magnetic resonance spectrometer and accessories for investigation into application of nuclear magnetic resonance in physical, organic, and inorganic chemistry.

(8) An amended grant for three and a quarter years from 1 July 1963 with an additional grant of £1,100 for three years from 1 January 1964 for research in the Department of Geology on electron probe analysis of micro-volumes of various substances.

(9) An additional grant not exceeding £4,000 for an extended date to four years from 1 August 1963 for the Survey in English Usage computer project in the Department of English.

(10) An amended grant for three years from 1 September 1963 and a further grant not exceeding £5,508 for three years from 1 October 1963 for investigation in the Department of Psychology into speed and accuracy in decision making.

(11) A grant not exceeding £4,397 for three years from 1 October 1963 for study in the Department of Astronomy of the nature of lunar surface features.

(12) A grant of £2,275 for one year from 1 October 1963 for research in the Department of Chemistry on high pressure X-ray and neutron diffractions.

(13) A grant of £1,050 for one year from 1 October 1963 for investigation in the Department of Physics of the absorption spectrum of building materials, especially those containing water, at different wavelengths by the use of centimetric waves.

(14) A grant of £300 for one year from 1 November 1963 for research in the Department of Civil and Municipal Engineering on the effect of waves on beaches.

(15) A grant not exceeding £4,375 for three years from 1 December 1963 for investigation in the Department of Physics of problems of stellar atmospheres.

(16) A grant not exceeding £15,002 for three years and seven months from 1 January 1964 for investigation in the Department of Chemistry into streamlining

by automation of crystallographic research with application to chemical and biological problems.

(17) A grant not exceeding £9,970 for three years from 1 January 1964 for investigation in the Department of Chemical Engineering of biochemical fuel cells.

(18) A grant not exceeding £5,120 for three years from 1 January 1964 for investigation in the Department of Chemistry into the microwave spectra of molecules in excited vibrational states.

(19) A grant of £1,230 for one year from 1 January 1964 for purchase by the Department of Physics of computer time for the analysis of data from the bubble chamber programme.

(20) Additional grants of £1,082 and £54 3*s*. 4*d*. for one year from 1 January 1964 for research in the Department of Mechanical Engineering on the motion of shafts.

(21) A grant not exceeding £7,064 from 1 February 1964 for research in the Department of Physics on co-operative oscillations in many-electron atoms.

(22) A grant not exceeding £2,300 for one year from 1 February 1964 for research in the Department of Botany on the role of histones in the regulation growth in the hypocotyl of lupinus.

(23) A grant not exceeding £10,425 for three years from 1 April 1964 for investigation in the Department of Botany on the synthesis and distribution of nucleic acids and lipids in the egg cells of a plant.

(24) A grant not exceeding £5,585 for three years from 1 April 1964 for study in the Department of Zoology of population metabolism and energy flow in simple soil communities.

(25) A grant not exceeding £1,845 for one year and six months from 1 April 1964 for investigation in the Department of Physics of K and Λ meson decays and the life-time of the Ξ° meson.

(26) A grant not exceeding £1,800 for one year from 1 April 1964 for investigation in the Department of Biochemistry of structure and synthesis in bacteria.

(27) A grant not exceeding £2,310 for one year from 1 May 1964 for the Department of Physics for investigation entitled 'Neutrino interactions using nuclear emulsion in association with spark chambers'.

(28) An additional grant of £2,200 for an extended period of one year from 1 July 1964 for structural and geomorphological studies by the Department of Geology in Northern Chile.

(29) A grant not exceeding £2,481 for two years from 1 October 1964 for spectroscopic investigations in the Department of Astronomy of late type southern stars.

(30) A grant not exceeding £1,855 for one year from 1 October 1964 for research with the Emulsion Group in the Department of Physics.

(31) An additional grant of £1,995 with an extended date to 31 July 1964 for investigation in the Department of Zoology of mammals and mammal-like reptiles from the Upper Triassic deposits of Basutoland and South Africa.

(32) An additional grant of £1,578 with an extended date to 31 December 1963 for studies in the Department of Psychology on the training of adult workers.

(33) An additional grant of £250 with an extended date to 31 May 1964 for investigations in the Department of Physics on inelastic ionic collisions and ion-photon collisions.

(34) A grant not exceeding £177 for an Organisation Economic Co-operation

and Development Fellowship in the Department of Civil and Municipal Engineering to enable a member of staff to visit Zurich.

Diamond Corporation

A grant of £250 for one year from 1 October 1963 for research on diamonds in the Department of Chemistry.

Dunlop Rubber Company Limited

A donation of £700 per annum less tax by seven year covenant from September 1963 towards the cost of the new Chemistry building.

Esso Research Limited

A gift of £800 for the Department of Chemistry for the purchase of apparatus in the Department.

Lucy Marguerite Eyre

A bequest of £50 together with those of her books which were not required for the use of her relatives and intimate friends.

Ford Foundation

(1) An additional grant of $18,200 for one year from 2 August 1962 for the Department for English for the development of research and training in the use of English as a second language.

(2) A grant of $62,000 for three years from 1 January 1964 with an extension for eight months from 1 January 1967 for research in the Department of Psychology on re-training middle-aged and older workers.

Sir Alexander Gibb and Partners

A grant of £175 for approximately two months from 1 May 1963 for the Department of Civil and Municipal Engineering for analysis by photoelastic methods of stress distribution in cross section proposed for the Channel Tunnel.

Dr R. S. Julian Hawes

A bequest of his collections of protozoological slides and offprints.

Frank Herbert Charitable Trust

A gift of £250 for purchase by the Department of Scandinavian Studies of research equipment, and aid for student travel.

Hispanic Council and the Luso-Brazilian Council

A grant of £50 for 1962–63 for the Department of History for the Latin American History Library.

Home Office

An additional grant of £29 8*s.* 11*d.* for one year from 1 April 1962 and further grants of £3,250 and £378 for one year from 1 April 1963 for research in the Department of Psychology on recidivism of young offenders.

Home Office Research Unit

An additional grant of £66 6*s.* 3*d.* from 1 April 1963 and a further grant of

£4,897 for one year from 1 April 1964 for research in the Department of Psychology on recidivism of young offenders.

Hooker Chemical Corporation

A grant of $8,400 for two years from 1 October 1962 for research in the Department of Chemistry on the reactivity of co-ordinated ligands and certain potential inorganic polymers.

Sir Frederic Hooper

A bequest of the picture 'By the River' by Stanley Spencer.

Imperial Chemical Industries Limited

A gift of £2,100 for the Department of Chemistry for purchase of an infra-red spectrometer to be held on indefinite loan.

The Hon. Emily Kitson

A bequest of £1,000 in memory of her father, Baron Airedale of Gledhow, a former student of the College. To be used for the benefit of the Engineering Departments.

Leverhulme Trust

A grant of £3,750 per annum for three years for the Department of Spanish for salaries of staff and a gift of £500 for books.

Mather and Platt Limited

A donation of £100 towards the cost of the new Engineering building.

Medical Research Council

(1) An additional grant of £37 10*s.* for one year from 21 September 1962 and further grants of £1,030 and £75 for one year from 21 September 1963 for study in the Student Health Centre of the prevalence of mental ill-health in a population of university students.

(2) An additional grant of £52 10*s.* for one year from 1 January 1963 and a further grant of £820 for one year from 1 January 1964 for investigation in the the Department of Chemistry of molecular size and shape of muscle proteins in dilute solutions.

(3) An additional grant of £226 14*s.* 7*d.* for one year from 31 January 1963 and a grant not exceeding £1,950 per annum for seven months from 1 February 1964 for psychological study in the Department of Psychology of children of school age in the Tristan da Cunha settlement.

(4) Grants of £1,400 and £900 for one year from 1 April 1963 for research in the Department of Anatomy and Embryology on the formation of engrams in the cerebral cortex and their transfer from one side of the brain to the other.

(5) An additional grant of £250 for one year and three months from 1 April 1963 and a further grant of £1,700 for one year from 1 July 1964 for study in the Department of Physiology of the mechanism of formation and drainage of the cerebro-spinal fluid.

(6) An additional grant of £93 6*s.* 8*d.* from 1 April 1963 to 14 November 1963 and a further grant of £1,310 for one year from 15 November 1963 for an investigation in the Department of Physiology to determine the possible physiological or pathological significance of kinin (kallidin and bradykinin) and of the enzymes

which release them, and a gift not exceeding £195 for special apparatus for this research.

(7) An additional grant of £75 for nine months from 1 April 1963 for study in the Department of Eugenics, Biometry and Genetics of chromosomal translocations.

(8) An additional grant of £37 10*s*. for three months from 1 April 1963 and a grant not exceeding £745 for one year from 28 May 1964 for studies in the Department of Physiology of the properties of isolated muscle during contraction and relaxation.

(9) An additional grant of £25 for three months from 1 April 1963 and further grants of £100 and £1,200 for one year from 1 July 1964 for the Department of Anatomy and Embryology for scientific assistance in a study of synaptic structure in the autonomic nervous system.

(10) An additional grant of £3 for one year from 31 July 1963, further grants not exceeding £651 and £30 for one year from 1 August 1963 and a grant not exceeding £700 for one year from 31 July 1964, for the Department of Physiology for technical assistance for a member of staff for work on central control of muscle spindles.

(11) A grant of £44,430 for seven years from 1 August 1963 for research in the Department of Zoology on biology of ageing.

(12) Grants of £550 and £49 11*s*. 8*d*. for one year from 1 September 1963 for investigation in the Department of Physiology into the transmission of information about external stimuli in primary and second order receptor neurones.

(13) An additional grant of £30 for one year from 1 September 1963 for study in the Department of Physiology of the long term effect of polarizing currents on the rat cerebral cortex.

(14) A grant not exceeding £4,848 for one year from 16 September 1963 for investigation in the Department of Physiology of the relative importance of alpha and gamma activation in muscle reflexes.

(15) A grant not exceeding £200 for one year from 18 September 1963 for the Department of Biochemistry for expenses of a study of potentially antileprotic diphenyl thioureas in laboratory animals and in man, and the effects of these substances on the metabolism of certain non-pathogenic mycobacteria and on *M. leprae*.

(16) A grant of £2,575 per annum approximately from 1 October 1963 to 31 August 1967 or earlier for histological research in the Department of Anatomy and Embryology.

(17) A grant of £1,350 for one year from 1 October 1963 for expenses in the Department of Biochemistry in connection with a kinetic and calorimetric study of isocitrate lyase enzyme catalysis reaction.

(18) A grant of £700 for one year from 1 October 1963 for the Department of Biochemistry for scientific assistance in an investigation of the structure and mode of synthesis of cell walls of *Pseudomonas* species.

(19) A grant of £800 for one year from 1 November 1963 for studies in the Department of Zoology of protein synthesis in drosophila.

(20) A grant of £1,500 for one year from 1 December 1963 for study in the Department of Biochemistry of amino acid metabolism in the perfused rat liver.

(21) A grant of £750 for one year from 1 December 1963 for investigation in the Department of Chemistry of enzymic transamination.

(22) A grant of £1,000 for one year from 1 February 1964 for study in the

Department of Pharmacology of histidine decarboxylase in sensitised lymph node cells.

(23) A grant of £275 for one year from 7 February 1964 for study in the Department of Anthropology of the human karyotype in various populations.

(24) A grant of £1,556 10*s*. for one year from 21 February 1964 for investigation in the Department of Physiology of the mechanism by which polarising currents produce long lasting changes in spontaneous firing of cortical cells.

(25) A grant of £2,241 for one year from 1 March 1964 for study in the Department of Biochemistry of protein synthesis in mitochondria.

(26) A grant of £1,310 for one year from 1 April 1964 for statistical study in the Department of Eugenics, Biometry and Genetics of factors in the aetiology of spontaneous abortion.

(27) A grant of £1,250 for one year from 1 August 1964 for study in the Department of Biochemistry of the rates of synthesis of the pyridine nucleotides and of the concentrations and oxido-reduction state of NAD and NADP as regulators of metabolic processes.

(28) A grant not exceeding £1,300 for one year from 1 October 1964 for the Department of Biochemistry for the isolation of the messenger-RNA for the synthesis of *amidohydrolase in pseudomonas seruginosa.*

(29) A grant not exceeding £7,300 for one year for research in the Department of Pharmacology on the identification of urogastrone.

(30) A grant not exceeding £2,414 for the Department of Physiology for purchase of special apparatus for the purification of gamma-aminobutyric acid transaminase from brain and other enzymic projects.

(31) A grant of £1,569 for the Department of Physiology for purchase of special apparatus (for automatic analyses) in the estimation of hydroxyproline.

(32) An additional grant of £80 for X-ray studies in the Department of Chemistry of endemic bladder stones.

Mental Health Research Fund

A gift of £569 for the purchase of apparatus for the Department of Psychology.

Ministry of Aviation

(1) A grant not exceeding £1,595 and a further grant of £74 for one year from 1 June 1963 for the theoretical study in the Department of Chemistry of bond strengths of various inorganic links of interest in the high-temperature polymer field. In addition a grant of £1,900 for one year from 1 October 1963 for the experimental comparison of these bond strengths in the Department of Chemistry.

(2) A grant not exceeding £2,100 for one year from 1 September 1963 for investigation in the Department of Electrical Engineering of the subject of correlation of speech waveforms under certain conditions.

(3) A grant not exceeding £955 for one year from 1 October 1963 for research in the Department of Phonetics on sound coded speech.

(4) A grant of £950 for six months from 1 October 1963 for theoretical study in the Department of Physics of the microscopic processes involved in the interaction of electromagnetic radiation with gaseous media.

(5) A grant not exceeding £1,854 for one year from 1 January 1964 for investigation in the Department of Electrical Engineering of microwave aerials in plasma.

(6) A grant not exceeding £1,155 for one year from 1 January 1964 for experi-

mental analysis in the Department of Mechanical Engineering of turbine blade performance.

Ministry of Defence

(1) An additional grant of £80 for three years from 1 October 1961 for research in the Department of Electrical Engineering on vacuum electronics and semiconductors.

(2) A grant of £19,590 for three years from 1 April 1964 for research in the Department of Electrical Engineering on acoustic amplification phenomena.

Ministry of Education

(1) A grant of £43,000 for five years for a research project in the Department of Psychology on the construction of a new intelligence scale.

(2) A grant of £2,000 per annum for three years for the Department of English towards the cost of the Survey in English Language.

Ministry of Public Building and Works

Grants of £8,000 and £4,000 for one year from 1 January 1964 for the Department of Architecture for a pilot study of the effect of the design of buildings on their flexibility in use.

Multiple Sclerosis Society, U.S.A.

A grant of $3,000 for one year from 1 January 1964 for histological and micropharmacological study of Mauthner neurones in the Department of Physiology.

Muscular Dystrophy Group of Great Britain

A grant of £2,900 for three years from 1 October 1963 for research in the Department of Biochemistry on muscular dystrophy by studies on the properties of muscle enzymes in health and disease.

National Institutes of Health, U.S.A.

(1) A grant of $12,058 for one year from 1 June 1963 and a further grant of $7,017 for one year from 1 June 1964 for research in the Department of Zoology on behavioural interaction and ageing in saturniid moths.

(2) A grant of $8,800 for one year from 1 July 1963 for research in the Department of Eugenics, Biometry and Genetics on the mapping of human genes by cell culture.

(3) A renewed grant of $385 for one month from September 1963 for research in the Department of Biochemistry on growth hormone and lipid metabolism.

(4) A grant of $500 for one year from 2 September 1963 for research in the Department of Anatomy and Embryology on neural mechanisms in perception.

(5) An additional grant of $3,324 for six months from 1 October 1963 and a further grant of $21,381 for one year from 1 April 1964 for research in the Department of Pharmacology on psychotropic drugs and autonomic dysfunction.

(6) A grant of $500 for one year from 1 October 1963 for research in the Department of Zoology on the cell surface as an effector of cell specificity.

(7) A grant of $500 for one year from 1 October 1963 for research in the Department of Physiology on neurophysiology.

(8) Grants of $28,212 for one year from 1 January 1964 and $815 for one month from 1 December 1964 for research in the Department of Psychology on the psychopharmacology of learning, perception, and skill.

(9) A grant of $14,312 for one year from 1 June 1964 for research in the Department of Phonetics into the effect of drugs on speech production.

(10) A grant of $500 for a fellowship supply grant for a member of staff in the Department of Anatomy and Embryology.

National Institute for Research in Nuclear Science

(1) An additional grant of £2,100 from 1 January 1961 to 30 September 1965 for development in the Department of Physics of spark chambers for use with NIMROD.

(2) A grant not exceeding £16,000 for one year from 1 October 1963 for the construction of a heavy liquid bubble chamber in the Department of Physics.

(3) A grant of £4,800 from 1 January 1964 to 31 July 1967 for analysis in the Department of Physics of spark chamber pictures.

(4) A grant not exceeding £18,500 for three years four months from 1 April 1964 for the Department of Physics for participation in the London HPD-Atlas Programme.

(5) A grant not exceeding £3,200 for one year from 1 October 1964 for experiments with NIMROD in the Department of Physics.

(6) An additional grant of £2,000 for an extended date to 31 July 1967 for theoretical studies of elementary particles in the Department of Physics.

(7) An additional grant of £500 for an extended date to 31 December 1964 for experiments with the proton linear accelerator in the Department of Physics.

National Science Foundation

(1) A grant of $400 for two years from 1 October 1962 for fellowship expenses for a member of staff of the Department of Biophysics.

(2) A grant of $200 for one year from 13 September 1963 towards expenses incurred by a member of staff in the Department of Chemistry.

(3) A grant of $200 for one year from 11 October 1963 for expenses of a member of staff in the Department of Chemistry.

(4) A grant of $100 for six months from 23 March 1964 for expenses of a member of staff in the Department of Chemistry.

(5) A donation of $200 to aid in defraying costs of a postdoctoral N.A.T.O. fellowship for a member of staff in the Department of Chemistry.

(6) A grant of $200 for expenses of a member of staff of the Department of Physics.

Nature Conservancy

(1) A grant of £2,000 for one year from 1 July 1963 for research in the Department of Geology on the sedimentation of the north basin of Windermere.

(2) A grant of £1,267 for one year from 1 July 1963 for research in the Department of Photogrammetry and Surveying on development of photogrammetric techniques and apparatus for low-level and sub-aerial photography of research sites in Snowdonia.

(3) A grant not exceeding £2,730 for three years from 1 April 1964 for an assessment in the Department of Botany of the contribution of coppice to woodland production.

N.A.T.O. Scientific Affairs Division

A grant of $1,500 for approximately one year from April 1964 for geological studies in Norway by the Department of Geology.

Norwegian Government

A grant of £75 for the session 1963–64 for the Department of Scandinavian Studies being a contribution towards providing the emoluments payable to a Visiting Professor of Scandinavian Studies.

Nuffield Foundation

(1) An additional grant of £722 6*s*. 6*d*. for one year from 1 August 1962 for the maintenance by the Department of Botany of the Nuffield Botanic Research Garden.

(2) An additional grant of £1,298 for two years from 1 April 1963 for the Centre for Urban Studies to support a third Survey of London Life and Labour.

(3) An additional grant of £73 6*s*. 8*d*. for four months from 1 April 1963 for research in the Department of Zoology on ageing.

(4) An additional grant of £660 for eighteen months from 1 November 1963 for research in the Department of Anatomy and Embryology on the isolation of neurons from the mammalian brain.

(5) A grant not exceeding £22,000 for three years from 1 October 1964 for research in the Communication Research Centre into English language designed to contribute to the teaching of English in schools.

Dr R. Offor

A gift to the College of a collection of Egyptian antiquities.

Parke Davis and Company Limited

A grant of £200 for one year from 1 October 1963 for research in the Department of Physiology on inflammation peptides and related topics.

Max Rayne Foundation

A gift of £50,000 per annum for ten years to develop the Whitcher Place site for provision of residential accommodation for students.

Reckitt and Colman Holdings Limited

A donation of £50 towards the cost of the new Engineering building.

Rees Jeffreys Road Fund

A grant of £63 for 1963–64 to cover the cost of fees and expenses in the Department of Town Planning for a series of ten lectures on the Landscape of Roads and a further grant of £150 to pay the salary of a part-time studio instructor assistant to a member of staff of that Department.

The Joseph Rowntree Charitable Trust

A grant of £1,250 per annum for four years from 1962–63 for the Department of Laws towards the salary of a member of staff and a further £400 per annum towards secretarial expenses.

Royal Dutch/Shell Group

A donation of £10,000 by seven year covenant from October 1963 towards the cost of the new Chemistry building.

Royal National Institute for the Blind

A grant not exceeding £1,100 for one year from 1 November 1963 for investigation in the Department of Biochemistry of retinitis pigmentosa in rats.

Royal Society

(1) Grants of £4,270 and £1,802 for two years from 1 October 1963 for a tropical research fellowship awarded to a member of staff in the Department of Zoology.

(2) A grant of £1,050 for one year from 1 October 1963 for research in the Department of Physics on the excitation of atmospheric gases by high speed protons.

(3) A grant of £1,900 for purchase by the Department of Biochemistry of an automatic gas flow counter.

(4) A grant of £990 for investigation in the Department of Biochemistry on the control of mitochondrial metabolism by the pyridine nucleotides.

(5) A grant of £900 and a further grant of £665 for 1964 for the Department of Physiology for purchase of apparatus in connection with investigations on heat production in tortoise muscle.

Royal Society R. W. Paul Fund

(1) A grant of £7,836 for three years from 1 July 1963 for investigation in the Department of Electrical Engineering on measurements of microwave power in absorption of angular momentum.

(2) A grant of £7,485 for three years from 1 July 1963 for research in the Department of Electrical Engineering on a microwave electrostatic wattmeter.

Royal Society—Scientific Investigations Grant-in-Aid

A grant of £306 from 4 July 1964 to 1 August 1964 for the Department of Anatomy and Embryology for travelling and living expenses and insurance for a member of staff and three other divers to enable them to carry out continuous observations on the behaviour of octopuses in the sea.

R. J. Sainsbury Discretionary Settlement

A grant of £1,000 less tax for the Department of Fine Arts for the benefit of young sculptors on completion of training.

Shell International Research Maatschappij (Amsterdam)

(1) An additional grant of £250 for 1964 in general support of research work under the direction of Professor R. S. Nyholm in the Department of Chemistry.

(2) A grant of £750 per annum for three years from 1 October 1964 in general support of research work under the direction of Professor D. P. Craig in the Department of Chemistry.

Standard Telecommunication Laboratories Limited

A grant of £1,000 for one year from 1 October 1963 for study in the Department of Electrical Engineering of piezoelectric phenomena in semi-conductors.

The Swedish Institute for Cultural Relations

A grant of £75 for the session 1963–64 for the Department of Scandinavian Studies being a contribution towards providing the allowance payable to a Visiting Professor of Scandinavian Studies.

Unilever Limited

Grants of £1,000 for 1964–65 and £650 for 1965–67 for research in the Department of Chemistry in connection with terpene chemistry.

United States Air Force

(1) A grant of $18,570 for one year and eleven months from 1 October 1963 for research in the Department of Physics on electron impact cross sections for molecular hydrogen.

(2) A grant of $30,000 for one year from 1 February 1964 for research in the Department of Physics on determination of air density, temperature, and winds at high altitude.

(3) A grant of $24,480 for one year from 1 June 1964 for research in the Department of Anatomy and Embryology on anatomical localisation of target learning and memory.

(4) A grant of $20,748 for two years from 1 November 1964 for research in the Department of Physics on dispersion relations in high energy physics.

(5) An additional grant of $10,000 with an extension to 30 April 1965 for research in the Department of Phonetics on speech analyser systems.

United States Army

An additional grant of £22 10*s*. for one year from 1 December 1962 for research in the Department of Chemistry on radial distribution curve of electron density.

The Wellcome Trust

(1) A grant of £1,200 for one year from 30 September 1963 for investigation in the Department of Physiology into the relationship of work on heat and phosphocreatine breakdown in muscle.

(2) A grant of £1,500 for one year from 1 October 1963 for research in the Department of Biophysics on the 'trophic' function of motor nerves.

(3) A grant of £1,000 per annum for three years from 1 October 1964 for research in the Department of Biophysics on the transfer of electrolytes in cells with particular reference to red blood cells.

(4) A grant of £20,000 to finance a building project to provide additional laboratory space for the Department of Anatomy and Embryology over the South Gate entrance to Gower Street.

(5) A grant of £9,750 for the Department of Chemistry to enable the Varian Nuclear Magnetic Resonance Spectrometer, which is on permanent loan from the Trust, to be modernised to obtain the advantages of a 100 megacycle instrument.

Wenner Gren Foundation for Anthropological Research Inc.

(1) A grant of $1,500 for the Department of Anthropology towards expenses of a member of staff in connection with research among the Bangwa of West Cameroon.

(2) A grant of $280 for the Department of Anthropology to aid a genetical study of Sphakiotes.

Whitehall Foundation Inc.

A grant of $75,000 for three years from 1 July 1964 for investigation in the Department of Chemistry of substances promoting growth and differentiation in animal cells.

BENEFACTIONS AND DONATIONS TO THE LIBRARY

The Library received at the end of the session a gift of the highest importance. Sir Alan Gardiner, President of the Egypt Exploration Society, died on 19 December 1963 and under the terms of his will the College could take such items as it required from his library of Egyptology. Out of this valuable collection of 6,000 volumes Professor Emery selected 2,348 volumes to be incorporated into the already rich holdings of the Edwards Library of Egyptology. A further gift during the year to the Edwards Library was the presentation of a sum of money by the Hastings Egyptian Society for the purchase in memory of Captain T. Dannreuther, R.N., of a copy of *Papyrus Reisner I* edited by W. K. Simpson.

Again this session associates and former members of College have made many welcome and interesting gifts to the Library. Miss L. M. Eyre, a former student of College (1891–92) and a pupil of W. P. Ker, bequeathed some 800 volumes, amongst which were many first editions of eighteenth and nineteenth century English, French, and German classics and also an interesting selection of children's humorous, and Victorian illustrated books. From the estate of Dr Elizabeth Fraser, until 1945 a Reader in the Department of Zoology and until her death in February 1964 an Honorary Research Associate and a Fellow of the College, the Library received some 120 volumes on biological subjects and about 1,000 off-prints on embryology. The Library also received as a bequest from the library of Dr Hélène Coustenoble, who retired from a Readership in the Department of Phonetics in September 1962, some 50 books on phonetics.

Mr E. B. Bein presented a useful collection of classical texts and studies from the library of his late brother, and Professor Gregory Vlastos donated a sum of money to the Library for the purchase of an important classical work.

The Library of King's College London presented the Library with a set of sixteen volumes of D. Barros Arana's *Historia general de Chile*, 1884–1902.

The manuscript holdings of the George Orwell Archive continued to grow during the year through the help and generosity of George Orwell's relatives and friends. The Archive gratefully received gifts of Orwell letters from Mr R. S. R. Fitter, Mrs Dorothy Plowman, Sir Steven Runciman, Mr W. J. Strahan, and Professor Gleb Struve and gifts of letters and scripts for copying from Miss Lettice Cooper, Mrs Avril Dunn, Dr Hellmutt Jaesrich, Mr Arthur Koestler, Mr James Laughlin, Mr Michael Meyer, Rev. H. Rogers, W. H. Wilson Company, and Professor George Woodcock.

Three letters from Carlyle, Thackeray, and Tennyson to James Hannay were given to the Library by Mrs McCaig and Mrs Lacey to be added to the 200 Hannay letters which they had most generously presented to the Library through Professor Foote during the previous session.

APPENDIX XIII

COLLEGE ACCOUNTS 1963–64

The Balance Sheet and the Income and Expenditure Account for the year will be found on pages106-9.

BALANCE SHEET

Features of special interest were:

LIABILITIES

The Capital Account increased by £1,070,181, which was accounted for by the capitalisation of the value of new buildings completed in 1963-64 and also by receipts from donors toward the acquisition of properties.

ASSETS

Freehold Land and Buildings increased by £1,003,464, which was represented by the value of Stage V of the Biological Sciences Building, Stage III of the Engineering Building, the new boiler house, and an extension to the Anatomy Department.

TRUST FUNDS

The College holds endowments in the form of 181 separate trust funds with a total value of £1,078,871. The funds yield a total income of £53,000 per annum.

INCOME AND EXPENDITURE

The Income and Expenditure account showed a surplus of £2,565, as compared with a surplus of £685 for the previous year.

Income exceeded that of 1962–63 by £435,281, of which £392,393 represented increased grants from the Court of the University, including £177,700 for general purposes and £167,066 as earmarked grants for revision of salaries. Fees increased by £15,754 due mainly to a small increase in the students' composition fee.

Expenditure was £433,400 more than in 1962–63. Of this sum £349,066 was spent upon academic activities, of which about one half was represented by salary revisions and the remainder covered the cost of numerous new appointments of academic staff and technicians, and also provision for departmental maintenance and equipment. Maintenance of Premises required an additional £43,605.

The percentages of income and expenditure under the main classifications in 1963–64, as compared with 1962–63 and the corresponding year of the previous quinquennium, are shown in the following table.

EXPENDITURE	1957-8 %	1962-3 %	1963-4 %
Salaries and Pensions of Teaching Staff	49·2	48·9	49·4
Departmental Expenses, incl. Library ..	24·0	24·4	24·2
Maintenance of Premises ..	14·2	16·3	15·3
Administration ..	7·8	7·4	7·2
Other	4·8	3·0	3·9
	100·0	100·0	100·0

INCOME	1957-8 %	1962-3 %	1963-4 %
Endowments ..	3·1	2·1	2·0
Grants	84·4	86·9	87·3
Donations ..	·5	·8	1·1
Fees	10·4	9·1	8·3
Other	1·6	1·1	1·3
	100·0	100·0	100·0

EXTRA-BUDGETARY ACTIVITIES

The College administers the finances of many research projects supported from outside sources. 266 were being pursued actively at 31 July 1964. Receipts of research grants were £518,490 as compared with £425,047 in 1962–63, and payments rose from £480,703 to £509,500 in the respective years.

CAPITAL GRANTS

Capital Grants made during the year 1963–64 were as follows:	£
Acquisition of 4–10 Euston Buildings and 8–9 Regnart Buildings NW1:	
Professional and legal charges	1,770
Adaptations in Foster Court for Department of Geography:	
Building work	19,218
Adaptations in North Wing for Department of Chemistry:	
Building work	11,730
Purchase of laboratory benching and lighting fittings	3,336
Purchase of furniture	3,421
Adaptations in Foster Court to provide additional accommodation for the Departments of Geography and Geology: Purchase of equipment and furniture	6,739
Adaptations in Slade School to provide additional studio space: Purchase of furniture	2,762
Alterations in Bartlett School of Architecture: Purchase of furniture..	4,118
Alterations to Department of Zoology: Purchase of equipment and furniture	2,851
Alterations in North Wing for Slade School:	
Building work	9,049
Purchase of furniture	5,263
Biological Sciences Block, Stage V: Purchase of further equipment for Department of Botany and Lecture Theatre	21,621

	£
5 and 6 Colosseum Terrace NW1 to provide student residential accommodation:	
Purchase of lease	10,600
Professional and legal charges	191
Building work	8,121
Purchase of furniture	7,129
Conversion of room in 19 Gordon Street for Dental Centre:	
Building work	911
Purchase of furniture	287
Engineering Building, Stages I, II and III: Purchase of equipment for Department of Mechanical Engineering	12,185
Engineering Building, Stage III:	
Purchase of equipment (interim grant)	40,000
Purchase of equipment for Department of Civil and Municipal Engineering	113,369
Purchase of furniture	25,552
Extension of Department of Anatomy:	
Professional fees	3,741
Purchase of equipment and furniture	29,055
Lecture Room in Foster Court consequent upon installation of lift:	
Purchase of desks	581
New Hall of Residence in Fitzroy Street: Purchase of furniture and equipment	31,963
New Building for the Department of Eugenics, Biometry and Genetics:	
Demolition and site preparation	2,000
Physics Extension: Preliminary adaptations to 25 Gordon Street	5,505
Redevelopment of southern part of College rectangle: Preliminary study	2,500
	£385,568

SCHOLARSHIPS AND PRIZES

Expenditure amounted to £19,467 0*s.* 3*d.* Awards were made as under:

	Undergraduate			*Postgraduate*		
	£	*s.*	*d.*	£	*s.*	*d.*
From Endowments	2,139	14	7	4,013	10	0
,, Donations and Subscriptions	1,167	8	10	9,768	14	2
,, General Income	842	2	8	1,265	10	0
,, General Income: Exhibition Bursaries and special fee remissions	20	0	0	250	0	0
	£4,169	6	1	£15,297	14	2

31-7-63 £		£
8,477,982	CAPITAL ACCOUNT	9,548,163
58,650	REDEMPTION FUNDS	63,221
13,928	INCOME AND EXPENDITURE ACCOUNT	16,494
8,550,560		9,627,878
569,024	SUNDRY FUNDS	557,035
165,563	LOANS	149,906
383,930	UNEXPENDED BALANCES	514,682
287,070	CURRENT LIABILITIES	266,331
9,956,147		11,115,832
1,122,119	TRUST FUNDS	1,132,170
£11,078,266		£12,248,002

NOTE

The College freehold properties were revalued during 1959 on the basis of current land values and estimated building costs, by the College authorities with professional assistance from Quantity Surveyors. Accordingly these properties are stated at the 1959 valuation with subsequent additions at estimated cost. No value is included in capital account for furniture and equipment.

We have audited the above balance sheet and the annexed income and expenditure notes thereon, a true and fair view of the state of affairs of University College on that date: (*b*) moneys expended during the year out of non-recurrent grants for specific purposes have been properly applied to those purposes.

3 Frederick's Place, Old Jewry, London, E.C.2.
23rd November, 1964.

AS AT 31 JULY 1964

31-7-63 £		£	£
8,689,721	FREEHOLD LAND AND BUILDINGS—see note below ..		9,693,185
	LEASEHOLD LAND AND BUILDINGS, at cost	189,705	
	Add: 5-6 Colosseum Terrace	9,040	
	2-4 Gordon Street	23,730	
		222,475	
	Less: Amortization to date	52,754	
142,568			169,721
8,832,289			9,862,906
21,389	CAPITAL AND OTHER WORKS IN PROGRESS *less* capital grants and other capital receipts		32,832
592,854	INVESTMENTS		506,079
	(*Market Value of Stock Exchange Securities and other Investments at 31st July, 1964, £550,235: 31st July, 1963, £632,797.*)		
210,338	EXPENDITURE RECOVERABLE FROM FUTURE GRANTS ..		234,530
57,782	CAPITAL WORKS—Expenditure in respect of Suspended Works		57,782
241,495	CURRENT ASSETS including prepayments		421,703
9,956,147			11,115,832
1,122,119	TRUST FUNDS		1,132,170
£11,078,266			£12,248,002

account. In our opinion (*a*) the said accounts give, on the basis indicated in the London at 31st July, 1964, and of the income and expenditure for the year ended received from the University Court and other funds administered by the College

PRICE WATERHOUSE & CO.
Chartered Accountants

EXPENDITURE

1962–63 £			£	£
	ADMINISTRATION			
123,404	Salaries		143,255	
8,475	Superannuation		10,241	
38,719	Advertising, Printing, Stationery, Postage, and Telephone		41,729	
8,754	Other Expenses (including Professional Fees)		10,433	
(179,352)				205,658
	ACADEMIC DEPARTMENTS			
1,066,567	Salaries of Teaching Staff		1,298,521	
95,718	Superannuation		115,134	
302,605	Departmental Wages (including Superannuation)		340,220	
191,475	Departmental and Laboratory Maintenance		228,503	
93,584	Libraries		104,899	
6,418	Other Expenses		18,156	
(1,756,367)				2,105,433
	MAINTENANCE OF PREMISES			
71,606	Rates		97,399	
4,567	Insurance		4,429	
	Rent and other payments for use of buildings:			
7,766	Halls of Residence	9,378		
2,522	Other Buildings	3,704		
			13,082	
80,222	Heat, Light, Water and Power		83,674	
183,602	Repairs and Maintenance of Buildings including amounts set aside for long-term maintenance		194,148	
40,291	Wages of Porters and Attendants (including Superannuation)		40,930	
4,779	Other Expenses		5,298	
(395,355)				438,960
	GENERAL EDUCATIONAL			
1,815	Examinations		1,820	
16,734	Scholarships and Prizes		19,467	
948	Public Lectures		660	
2,000	Staff Attendance at Conferences		2,500	
356	Other Items		300	
(21,853)				24,747
	STUDENT FACILITIES AND AMENITIES			
27,000	Grant to Students' Union		32,085	
2,605	Salaries and Superannuation of Wardens of Halls of Residence		2,681	
4,436	Student Health Service		2,817	
2,695	Students' Purposes Fund		2,895	
250	Crabb Robinson Fund		200	
430	Ealing Hall Fund		507	
3,118	Central Admissions Scheme		3,452	
5,000	Furniture for Student Houses		2,500	
—	Miscellaneous		15	
(45,534)				47,152
	MISCELLANEOUS			
14,568	Staff Pensions		16,418	
703	Grants from Benevolent Fund		796	
450	Grants from Bawden Fund		2,100	
1,388	Interest on Overdrafts, etc.		1,769	
5,588	Sundries		4,805	
	Deficits on Income and Expenditure Account for Halls of Residence, Refectories, etc.			
	Refectory:			
1,050	College Subvention	1,110		
1,829	Trading Loss written off	1,707		
			2,817	
(25,576)				28,705
	CAPITAL EXPENDITURE MET FROM INCOME			
3,100	Gordon Street Frontage		3,250	
1,000	12, Euston Buildings		132	
—	Outstation Development		7,500	
(4,100)				10,882
2,428,137				2,861,537
685	Excess of Income over Expenditure for the year			2,566
£2,428,822				£2,864,103
13,928	Balance 31st July, 1964 carried to Balance Sheet			16,494
£13,928				£16,494

INCOME

1962–63 £		£	£
	ENDOWMENTS		
51,523	Income of Trust Funds appropriated for purposes specified by Trust against expenditure included opposite		57,997
	DONATIONS AND SUBSCRIPTIONS: Appropriated for:		
176	Special Purposes	676	
7,272	Scholarships and Bursaries	10,247	
11,773	Salaries and Superannuation	14,809	
1,498	Departmental and Laboratory Maintenance	4,911	
(20,719)			30,643
	GRANTS FROM UNIVERSITY COURT		
1,900,000	General	2,077,700	
	Earmarked :—		
—	Academic salary increases 1964 Scheme	81,796	
43,057	Academic salary increases 1963 Scheme	134,655	
45,301	Academic salary increases 1962 Scheme	48,973	
44,351	Former Research Councils	57,950	
2,946	Medical Education	9,185	
71,606	Rates	89,473	
1,669	Hayter Committee	1,591	
(2,108,930)			2,501,323
	FEES		
220,226	General	236,482	
792	Examination and Registration	673	
653	Exhibition Bursaries and Special Remissions	270	
(221,671)			237,425
9,132	CONTRIBUTIONS FOR SERVICES RENDERED		11,832
	SURPLUS FROM INCOME AND EXPENDITURE ACCOUNTS FOR COLLEGE PROPERTIES, HALLS OF RESIDENCE, REFECTORIES, ETC.		
1,169	College Properties		910
15,678	OTHER ITEMS..		23,973

NOTES

1. In addition to the Income and Expenditure shown, sums totalling £509,503 (£480,703 in 1962–63) were spent on Extra-Budgetary activities for which grants have been or will be received from outside sources.
2. Certain items of expenditure shown in this account totalled £350,483 3*s*. 10*d*. representing a net increase of £18,586 (£15,042 in 1962–63) during the year in unexpended balances of general revenue grants from University Court.

£2,428,822		£2,864,103
13,243	Balance as at 1st August, 1963	13,928
685	Excess of Income over Expenditure for the year	2,566
£13,928		£16,494